





# WAGO Full Line Catalogs




## WAGO Rail-Mount Terminal Blocks and Connectors

- Rail-Mount Terminal Blocks
- Rail-Mount Terminal Blocks with a Pluggable Connector (X-COM®-SYSTEM)
- Patchboard Systems
- Terminal Strips
- PUSH WIRE® Connectors for Junction Boxes
- Lighting Connectors
- Shield Connecting System




## WAGO PCB Terminal Blocks and Connectors

- PCB Terminal Blocks
- THR/SMD PCB Terminal Blocks
- *MULTI CONNECTION SYSTEM (MCS)*
- Pluggable PCB Terminal Blocks
- Feedthrough Terminal Blocks
- Specialty Connectors
- Empty Housings




## WAGO Pluggable Connection System WINSTA®

- Pluggable Connectors
- Snap-In Device Connectors
- Pluggable PCB Connectors
- Distribution Connectors
- Cable Assemblies
- Flat Cable Systems
- Distribution Boxes




## WAGO Automation Technology

- Solutions & Software
- Operating & Monitoring
- Controllers, Edge Devices
- Modular I/O System IP20, I/O System IP67
- Industrial Switches
- Radio Technology
- IP67 Sensor/Actuator Boxes, IP67 Cables and Connectors




## WAGO Interface Electronics

- Relay and Optocoupler Modules
- Signal Conditioners and Isolation Amplifiers
- Current and Energy Measurement Technology
- Power Supplies
- Interface Modules and System Wiring
- Overvoltage Protection
- Empty Housings



## WAGO Power Supplies

- Power Supplies
- DC/DC Converters
- Circuit Protection
- UPS-Charger and Capacitive Buffer Modules
- Redundancy Modules
- Current and Energy Measurement Technology
- Overvoltage Protection












## WAGO Marking

- Printer
- Software
- Terminal Block Marking
- Cable and Conductor Marking
- Device Marking
- Marker Carriers



# Connection Technology for Lighting and Electrical Equipment

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# We Connect

## Connection Technology for LED Modules

### Why use WAGO?

- Flexible and modular applications
- A low profile and white housing minimize on-board shadowing
- High component quality and durability

Our space-saving and modular connection systems can easily be implemented in already existing installations. Whether round, linear modules or retrofits, WAGO's connection solutions are easy to use while providing the quality you can rely on.



### Series



2059 Series



2060 Series



2061 Series



2065 Series



2070 Series



2075 Series

## Connection Technology for LED Drivers

### Why use WAGO?

- Wide product range for multiple applications
- Automated wiring solutions
- Compact solutions with custom color coding options

The perfect connection technology: A vast array of PCB terminal blocks for LED drivers offers you the best solution for various applications. Whether outdoor, compact or linear drivers – you will find the ideal solution for your application.



### Series



250 Series



235 Series



805 Series



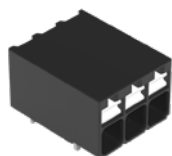
804 Series



744 Series



253 Series



2086 Series



2061 Series

# Your Light



## Lighting Connection

### Why use WAGO?

- Easy and safe wiring of lights and appliances
- Compact, easy-to-use design, transparent housing, two test slots
- Electrical installations can be plugged in easily, safely and error-free with the WAGO Pluggable Connection System *WINSTA*®
- Circuits can be created quickly, expanded flexibly and adapted to new requirements

Regardless of whether the power connection is located inside or outside of the lamps, or whether the lighting systems are used for street lighting, homes, or in a hospital – you can rely on quality from WAGO for every application.

### Series



294 Series



Linect® 294 Series



272 Series



862 Series



224 Series



267 Series



221 Series



2273 Series



2773 Series



## Pluggable Lighting Connection

### Why use WAGO?

- Circularity: Pluggable connections facilitate replacement of lights and their components
- Easy wiring via lever, push-button or operating slot
- Push-in *CAGE CLAMP*® terminates both solid and ferruled conductors by simply pushing them into the unit
- Time savings and good predictability thanks to pre-assembled cables, such as *WINSTA*®

### Series



*WINSTA*®



873 Series



733 Series



734 Series



721 Series



2731 Series



2231 Series



2091 Series

## From Pioneer to Leader



WAGO Minden, Germany – Global Headquarters

When the first screwless terminal blocks debuted at the Hannover Messe trade fair in 1951, they represented a significant advance in manufacturing. At the time, manufacturing terminal blocks was not possible because the carbon steel available then did not meet the strict quality requirements.

Undeterred, WAGO was quite active in the years leading up to the 1977 debut of the first series of CAGE CLAMP®-equipped rail-mount terminal blocks of 0.08–16 mm<sup>2</sup> (28–6 AWG). With numerous developments – from the Suprafix banana plug product family, to the first range of rail-mount terminal blocks for conductors up to 16 mm<sup>2</sup> (6 AWG) – WAGO has firmly established itself as an innovator.

With this reputation and the need for “vibration-proof, fast, maintenance-free” connections, CAGE CLAMP® quickly outperformed all previous connection technologies to become a worldwide industrial standard.

Today, CAGE CLAMP® technology has several imitators, yet it remains unmatched. WAGO continues to set new standards with further developments, such as the CAGE CLAMP® Compact (1996) for ultra-compact applications and the WAGO POWER CAGE CLAMP (1998) for rated cross-sections up to 185 mm<sup>2</sup> (350 kcmil). The figures speak for themselves: More than 35 billion CAGE CLAMP® springs have been sold worldwide, and every day, millions of clamps are added to that number.

In 1951, WAGO was founded in Minden, Germany. Today the WAGO Group consists of 32 companies with more than 9,000 employees, worldwide operations and global sales of 1.34 billion euros (2023).

The first factory was located in Minden, Germany, which is also our global headquarters. As part of WAGO’s international expansion, additional factories have been built: 1977 in Domdidier (Switzerland), 1979 in Milwaukee (USA), 1995 in Sondershausen (Germany) and Delhi (India), as well as 1997 in Tianjin (China) and Wroclaw (Poland).

Products manufactured locally for domestic and foreign markets form the starting point for localized distribution networks that cover WAGO’s complete product portfolio. This system allows all WAGO subsidiaries and sales offices to develop and deliver custom-designed products that comply with local regulations and meet local demand. More than half of WAGO’s global staff of 8,500 is employed outside of Germany.



# WAGO Worldwide



WAGO Minden



WAGO Papinghausen



WAGO Sondershausen, Germany



WAGO Switzerland



WAGO France



WAGO Poland



WAGO USA



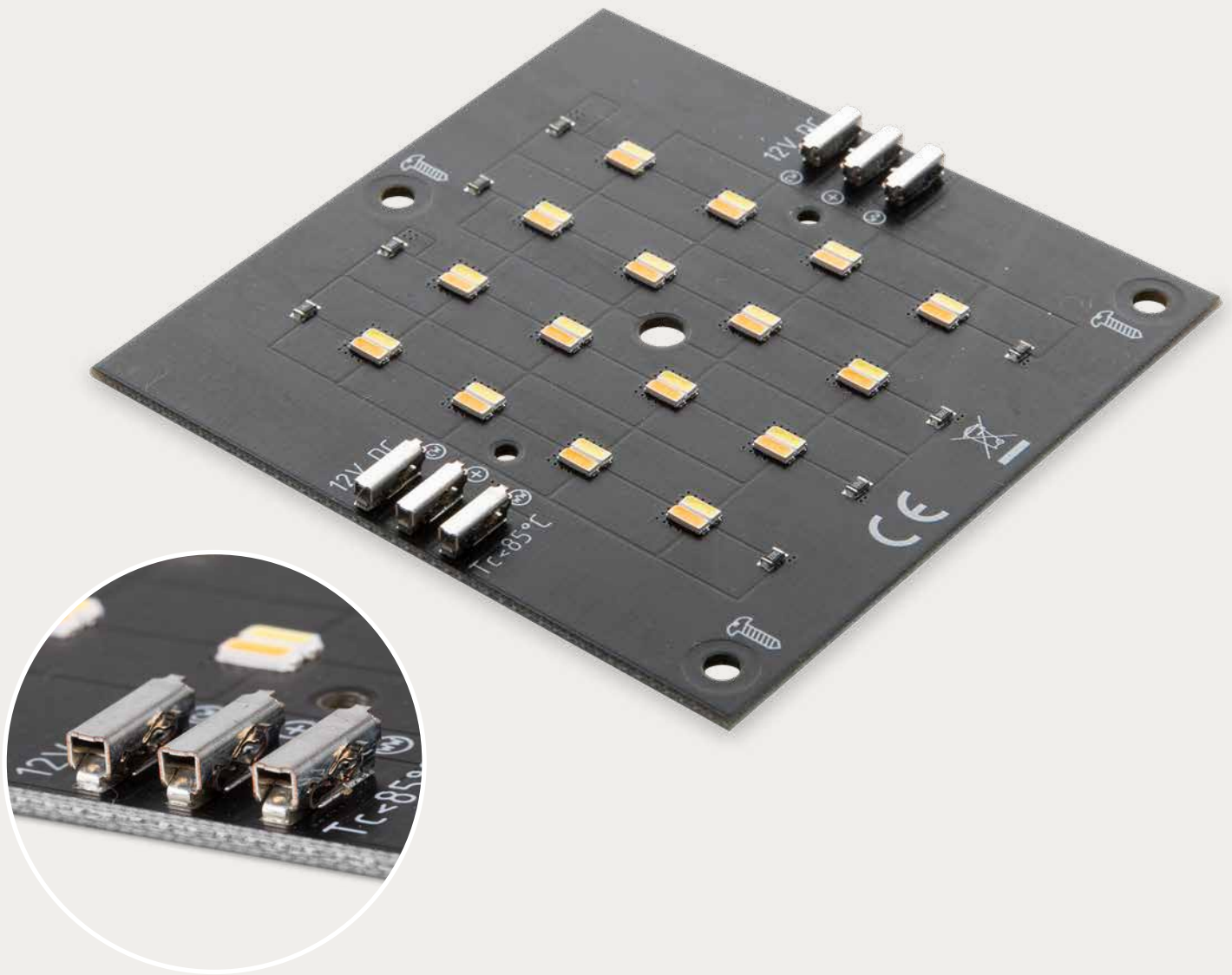
WAGO China



WAGO India








WAGO Japan



# WAGO SMD Terminal Blocks for LED Modules



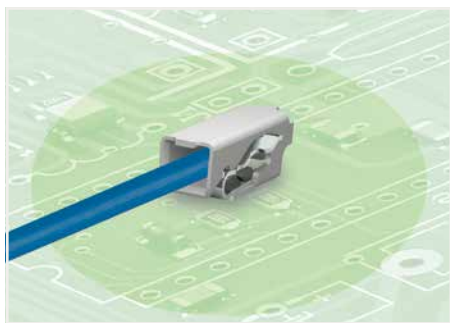
## WAGO SMD Terminal Blocks for LED Modules

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**SMD PCB Terminal Block ▶ 2065 Series**

Push-in CAGE CLAMP® ▶ Pin spacing: 6.5 mm / 0.256 inch ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup> ▶ Color: silver

1



- SMD PCB terminal block with Push-in CAGE CLAMP® connection technology and push-button
- Push-in termination of solid conductors
- Convenient termination/removal of fine-stranded conductors via push-button and operating tool
- Just 2.7 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also available in a PUSH WIRE® variant without push-button (only for solid conductors)

| Electrical Data      | Push-in CAGE CLAMP® |       |       | PUSH WIRE®        |       |       |
|----------------------|---------------------|-------|-------|-------------------|-------|-------|
| Pin spacing          | 6.5 mm / 0.256 inch |       |       | 6 mm / 0.236 inch |       |       |
| Ratings per          | IEC/EN 60664-1      |       |       | IEC/EN 60664-1    |       |       |
| Overtoltage category | III                 | III   | II    | III               | III   | II    |
| Pollution degree     | 3                   | 2     | 2     | 3                 | 2     | 2     |
| Rated voltage        | 320 V               | 320 V | 630 V | 250 V             | 320 V | 630 V |
| Rated surge voltage  | 4 kV                | 4 kV  | 4 kV  | 4 kV              | 4 kV  | 4 kV  |
| Rated current        | 9 A                 | 9 A   | 9 A   | 9 A               | 9 A   | 9 A   |
| Approvals per        | UL 1977             |       |       | UL 1977           |       |       |
| Rated voltage        | 600 V               |       |       | 600 V             |       |       |
| Rated current        | 9 A                 |       |       | 9 A               |       |       |

| Connection Data                  |  |
|----------------------------------|--|
| Connection technology            | Push-in CAGE CLAMP®                          |
| Strip length                     | 7.5 ... 9.5 mm / 0.3 ... 0.37 inch           |
| Conductor entry angle to the PCB | 0°   |
| Conductor cross-sections         |  |
| Solid conductor                  | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor          | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Connection technology            | PUSH WIRE®                                   |
| Strip length                     | 7.5 ... 9.5 mm / 0.3 ... 0.37 inch           |
| Conductor entry angle to the PCB | 0°   |
| Conductor cross-sections         |  |
| Solid conductor                  | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |

| Material Data            |                                   |
|--------------------------|-----------------------------------|
| Limit temperature range  | -60 ... +120 °C                   |
| Clamping spring material | Chrome nickel spring steel (CrNi) |
| Contact material         | Copper alloy                      |
| Contact plating          | Tin-plated                        |

**NOTE: Terminal block without insulation housing!**  
Protection against accidental contact must be provided at voltages higher than low voltages (e.g., SELV/PELV) for the relevant application.

The layout must meet the requirements of the insulation coordination standard EN/IEC 60664-1 and applicable end product standards.

### SMD PCB Terminal Block ▶ 2065 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 6.5 mm / 0.256 inch ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup> ▶ Color: silver

With push-button; Push-in CAGE CLAMP® connection; Reel diameter 330 mm; Pin spacing: 6.5 mm

Without push-button; PUSH WIRE® connection; Reel diameter 330 mm; Pin spacing: 6 mm

Operating tool for SMD PCB terminal block with push-button (Item No. 2065-100/998-403)

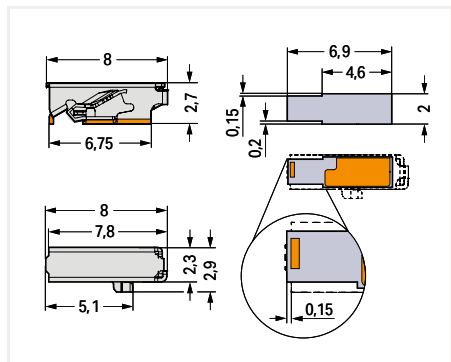


| Pole No. | Item No.         | PU           |
|----------|------------------|--------------|
| 1        | 2065-100/998-403 | 31800 (2650) |

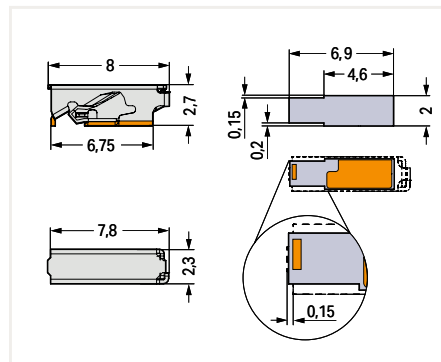
| Pole No. | Item No.         | PU           |
|----------|------------------|--------------|
| 1        | 2065-101/998-403 | 31800 (2650) |

| Item No. | PU       |
|----------|----------|
| 2065-189 | 600 (50) |

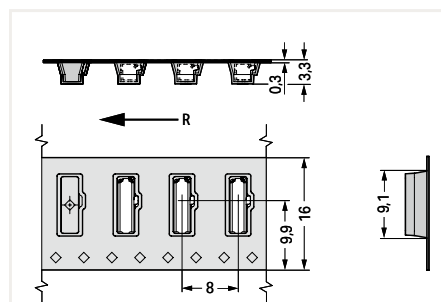
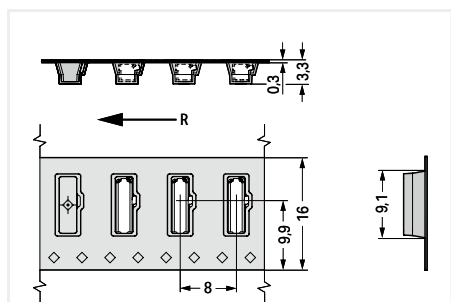
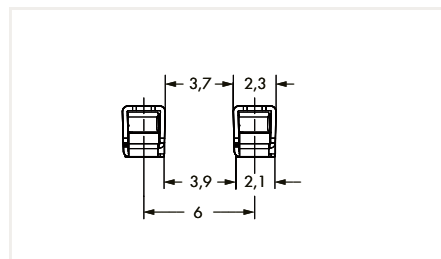
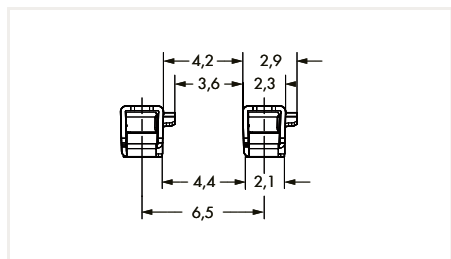
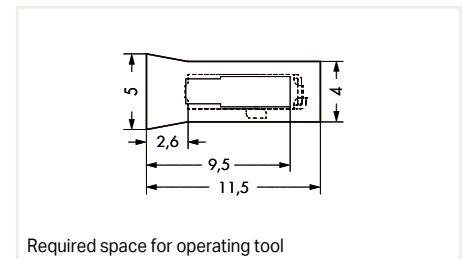
Dimensions in mm



Dimensions in mm

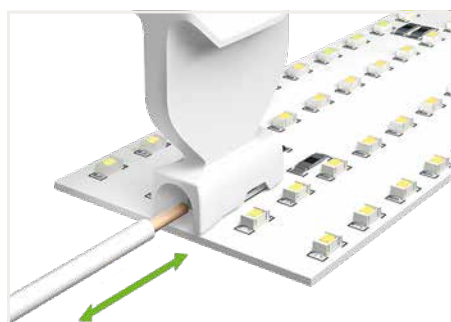


Dimensions in mm

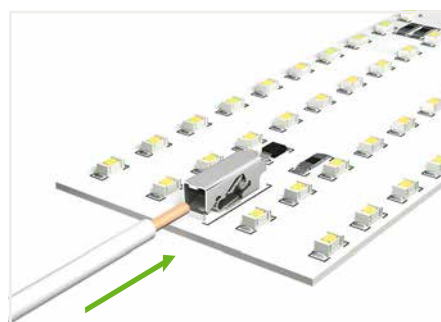


R = feed direction

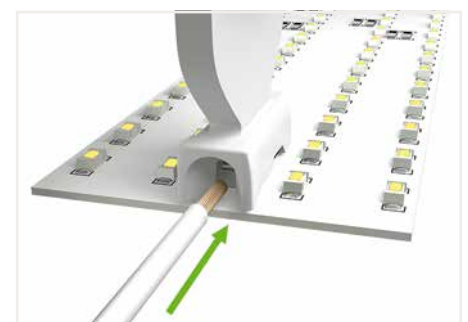
R = feed direction



Push-in CAGE CLAMP® variant: Insert fine-stranded conductors and remove all conductor types via operating tool. Solid conductors can also be terminated by simply pushing them in.



PUSH WIRE® variant without push-button: Save even more space when only using solid conductors; remove conductors by twisting and pulling (max. 10 x, no reconnection of smaller conductors possible).

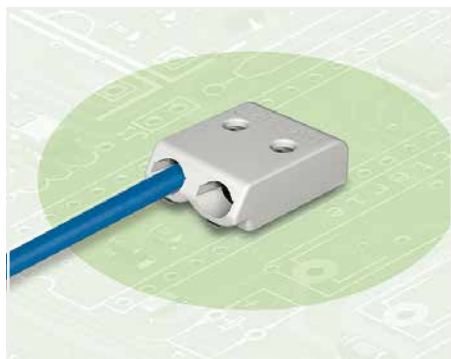


The funneled conductor entry of the operating tool (Item No. 2065-189) securely guides all conductor types into the Push-in CAGE CLAMP®.

## SMD PCB Terminal Block ▶ 2059 Series

PUSH WIRE® ▶ Pin spacing: 3 mm / 0.118 inch ▶ Actuation type: operating tool ▶ 0.34 mm<sup>2</sup>

1



- SMD PCB terminal blocks with PUSH WIRE® connection technology
- Push-in termination of solid conductors\*
- Easy conductor removal via operating tool
- Just 2.7 mm tall
- Assemble terminal blocks without pole loss
- Available in tape-and-reel packaging for automated assembly

| Electrical Data      | 1-pole            |        |        | 2-/3-pole         |        |        |
|----------------------|-------------------|--------|--------|-------------------|--------|--------|
| Pin spacing          | 3 mm / 0.118 inch |        |        | 3 mm / 0.118 inch |        |        |
| Ratings per          | IEC/EN 60664-1    |        |        | IEC/EN 60664-1    |        |        |
| Overvoltage category | III               | III    | II     | III               | III    | II     |
| Pollution degree     | 3                 | 2      | 2      | 3                 | 2      | 2      |
| Rated voltage        | 63 V              | 160 V  | 320 V  | 63 V              | 160 V  | 320 V  |
| Rated surge voltage  | 2.5 kV            | 2.5 kV | 2.5 kV | 2.5 kV            | 2.5 kV | 2.5 kV |
| Rated current        | 3 A               | 3 A    | 3 A    | 3 A               | 3 A    | 3 A    |
| Approvals per        | UL 1977           |        |        | UL 1977           |        |        |
| Rated voltage        | 600 V             |        |        | 250 V             |        |        |
| Rated current        | 3 A               |        |        | 3 A               |        |        |
| Approvals per        | UL 1059           |        |        | UL 1059           |        |        |
| Use group            | B                 | C      | D      | B                 | C      | D      |
| Rated voltage        | 600 V             | 600 V  | 600 V  | 150 V             | -      | -      |
| Rated current        | 5 A               | 5 A    | 5 A    | 5 A               | -      | -      |

| Connection Data                       |   |
|---------------------------------------|---|
| Connection technology                 | PUSH WIRE®  |
| Strip length                          | 4 ... 5.5 mm / 0.16 ... 0.22 inch   |
| Conductor connection direction to PCB | 0°  |
| Solid conductor                       | 0.14 ... 0.34 mm <sup>2</sup> / 26 ... 22 AWG   |
| *Note (conductor cross-section)       | For conductors that are not rigid enough, the clamping unit must be opened using an operating tool. |
| Strip length 2                        | 6 ... 7.5 mm / 0.24 ... 0.3 inch  |
| Solid conductor 2                     | 0.5 mm <sup>2</sup> / 20 AWG  |
| Note (conductor cross-section) 2      | No reconnection of smaller conductor cross-sections (0.5 mm <sup>2</sup> /20 AWG)                   |

| Material Data               |                          |
|-----------------------------|--------------------------|
| Material group              | I                        |
| Insulation material         | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0                       |
| Limit temperature range     | -60 ... +105 °C          |
| Contact material            | Copper alloy             |
| Contact plating             | Tin-plated               |

### Application notes:

Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

### Note (conductor cross-sections):

- No reconnection of smaller conductor cross-sections (0.5 mm<sup>2</sup>/20 AWG)
- For conductors that are not rigid enough, the clamping unit must be opened using an operating tool.

### Recommendation for SMD stencil:

150 µm material thickness; pattern layout identical to solder pad layout

# SMD PCB Terminal Block ▶ 2059 Series

PUSH WIRE® ▶ Pin spacing: 3 mm / 0.118 inch ▶ Actuation type: operating tool ▶ 0.34 mm<sup>2</sup>

White\*; Reel diameter: 330 mm

Black; Reel diameter: 330 mm

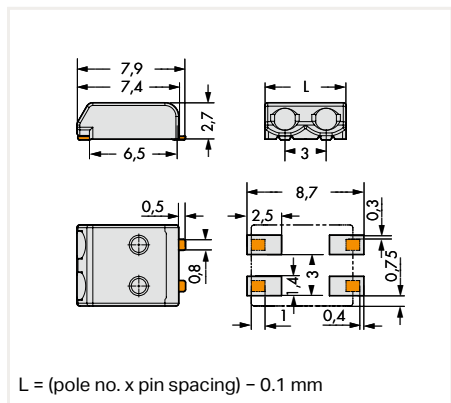


| Pole No. | Item No.         | PU           |
|----------|------------------|--------------|
| 1        | 2059-301/998-403 | 31800 (2650) |
| 2        | 2059-302/998-403 | 21000 (1750) |
| 3        | 2059-303/998-403 | 21000 (1750) |

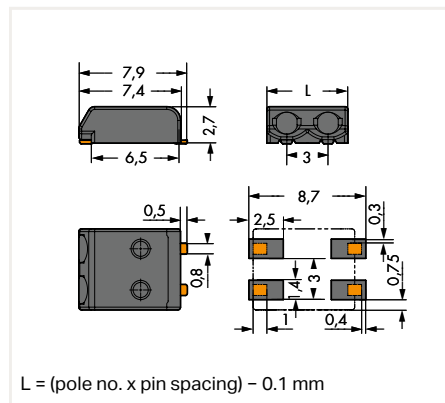
| Pole No. | Item No.         | PU           |
|----------|------------------|--------------|
| 1        | 2059-321/998-403 | 31800 (2650) |
| 2        | 2059-322/998-403 | 21000 (1750) |
| 3        | 2059-323/998-403 | 21000 (1750) |

\*Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

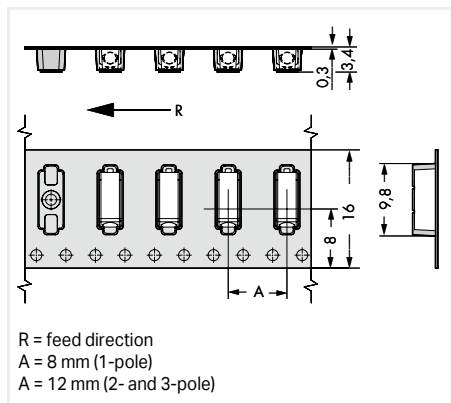
Dimensions in mm



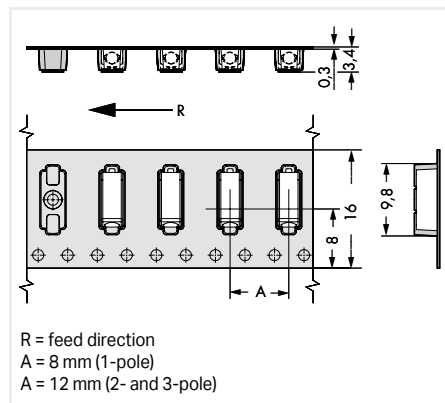
Dimensions in mm



Dimensions in mm



Dimensions in mm



Insert solid conductors via push-in termination.



Easy conductor removal, e.g., via operating tool (Item No. 206-859, 2059-189) or "twist & pull" (max. 10 x, no reconnection of smaller conductors possible)

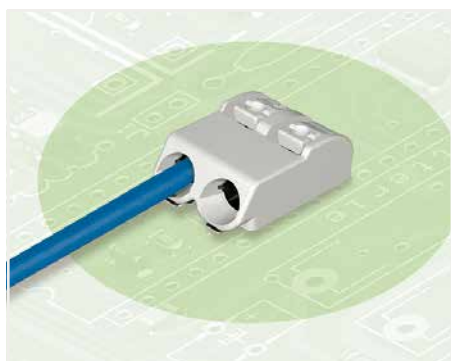


Available in tape-and-reel packaging for automated assembly

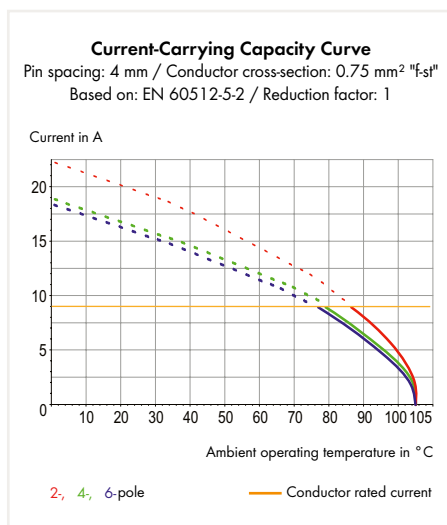
**SMD PCB Terminal Block ▶ 2060 Series**

Push-in CAGE CLAMP® ▶ Pin spacing: 4 mm / 0.157 inch ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup>

1



- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Height of just 4.5 mm
- Available in tape-and-reel packaging for automated assembly



| Electrical Data      | 1-pole            |        |        | 2-/3-pole         |        |        |
|----------------------|-------------------|--------|--------|-------------------|--------|--------|
| Pin spacing          | 4 mm / 0.157 inch |        |        | 4 mm / 0.157 inch |        |        |
| Ratings per          | IEC/EN 60664-1    |        |        | IEC/EN 60664-1    |        |        |
| Overtoltage category | III               | III    | II     | III               | III    | II     |
| Pollution degree     | 3                 | 2      | 2      | 3                 | 2      | 2      |
| Rated voltage        | 63 V              | 160 V  | 320 V  | 63 V              | 160 V  | 320 V  |
| Rated surge voltage  | 2.5 kV            | 2.5 kV | 2.5 kV | 2.5 kV            | 2.5 kV | 2.5 kV |
| Rated current        | 9 A               | 9 A    | 9 A    | 9 A               | 9 A    | 9 A    |
| Approvals per        | UL 1977           |        |        | UL 1977           |        |        |
| Rated voltage        | 600 V             |        |        | 320 V             |        |        |
| Rated current        | 9 A               |        |        | 9 A               |        |        |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 7 ... 9 mm / 0.28 ... 0.35 inch              |
| Conductor entry angle to the PCB                  | 0°   |
| Conductor cross-sections                          |  |
| Solid conductor                                   | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor                           | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.34 mm <sup>2</sup>                |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 0.34 mm <sup>2</sup>                |

| Material Data               |                          |
|-----------------------------|--------------------------|
| Material group              | I                        |
| Insulation material         | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0                       |
| Limit temperature range     | -60 ... +105 °C          |
| Contact material            | Copper alloy             |
| Contact plating             | Tin-plated               |

**Application notes:**

Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

**Recommendation for SMD stencil:**

150 µm material thickness; pattern layout identical to solder pad layout



# SMD PCB Terminal Block ▶ 2060 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 4 mm / 0.157 inch ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup>

White\*; Reel diameter: 330 mm

Black; Reel diameter: 330 mm



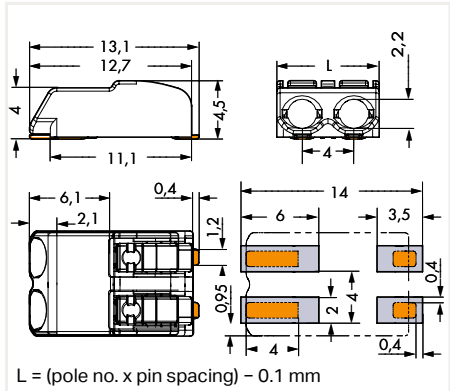
Insert solid conductors via push-in termination.

| Pole No. | Item No.         | PU           |
|----------|------------------|--------------|
| 1        | 2060-451/998-404 | 13500 (1500) |
| 2        | 2060-452/998-404 | 9000 (1000)  |
| 3        | 2060-453/998-404 | 6750 (750)   |

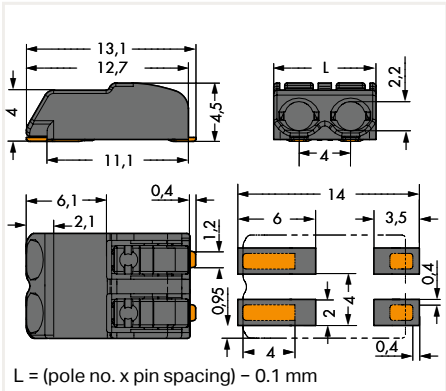
| Pole No. | Item No.         | PU           |
|----------|------------------|--------------|
| 1        | 2060-471/998-404 | 13500 (1500) |
| 2        | 2060-472/998-404 | 9000 (1000)  |
| 3        | 2060-473/998-404 | 6750 (750)   |

\*Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Dimensions in mm

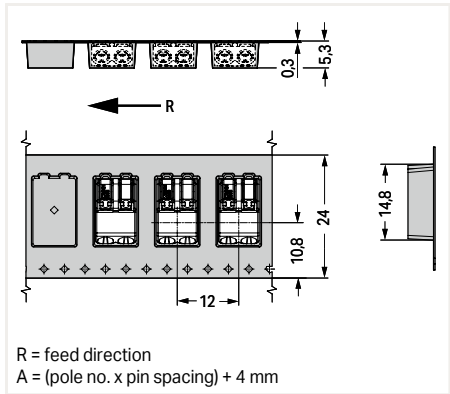


Dimensions in mm

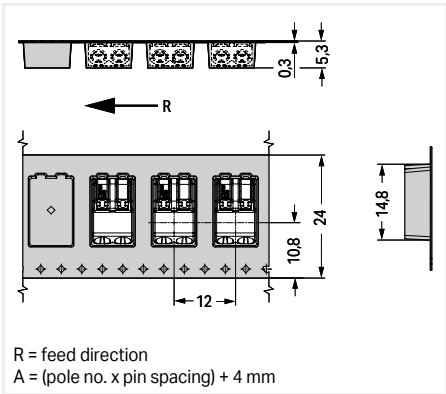


Insert/remove fine-stranded conductors by lightly pressing on a push-button, e.g., via operating tool (Item No. 206-860 or 2060-189).

Dimensions in mm



Dimensions in mm



Terminal blocks can be arranged side-by-side without loss of poles.



Available in tape-and-reel packaging for automated assembly

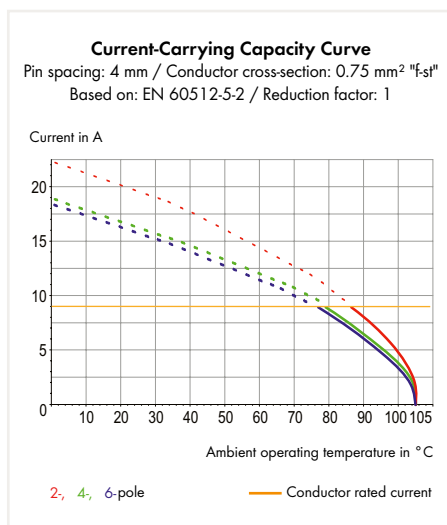
**SMD PCB Terminal Block ▶ 2060 Series**

Push-in CAGE CLAMP® ▶ Pin spacing: 8 mm / 0.314 inch ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup>

1



- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- 8 mm pin spacing version for higher-rated voltages
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Height of just 4.5 mm minimizes on-board LED shadowing
- Available in tape-and-reel packaging for automated assembly



| Electrical Data      |                   |       |        |
|----------------------|-------------------|-------|--------|
| Pin spacing          | 8 mm / 0.314 inch |       |        |
| Ratings per          | IEC/EN 60664-1    |       |        |
| Overvoltage category | III               | III   | II     |
| Pollution degree     | 3                 | 2     | 2      |
| Rated voltage        | 400 V             | 630 V | 1000 V |
| Rated surge voltage  | 6 kV              | 6 kV  | 6 kV   |
| Rated current        | 9 A               | 9 A   | 9 A    |
| Approvals per        | UL 1977           |       |        |
| Rated voltage        | 600 V             |       |        |
| Rated current        | 9 A               |       |        |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 7 ... 9 mm / 0.28 ... 0.35 inch              |
| Conductor entry angle to the PCB                  | 0°   |
| Conductor cross-sections                          |  |
| Solid conductor                                   | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor                           | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.34 mm <sup>2</sup>                |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 0.34 mm <sup>2</sup>                |

| Material Data               |                          |
|-----------------------------|--------------------------|
| Material group              | I                        |
| Insulation material         | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0                       |
| Limit temperature range     | -60 ... +105 °C          |
| Contact material            | Copper alloy             |
| Contact plating             | Tin-plated               |

**Application notes:**

Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

**Recommendation for SMD stencil:**

150 µm material thickness; pattern layout identical to solder pad layout

# SMD PCB Terminal Block ▶ 2060 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 8 mm / 0.314 inch ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup>

White\*; Reel diameter: 330 mm

Black; Reel diameter: 330 mm



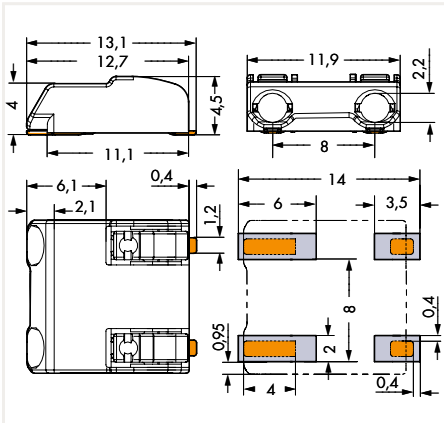
Inserting solid conductors via push-in termination (picture shows 2060 Series).

| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 2        | 2060-852/998-404 | 6750 (750) |

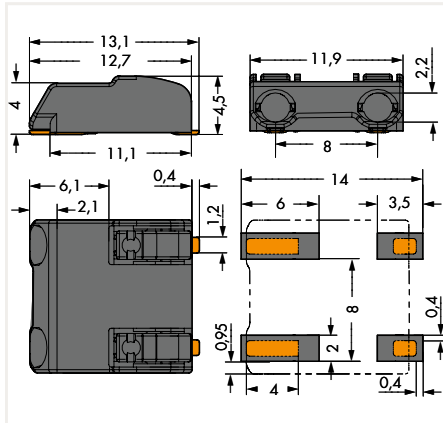
| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 2        | 2060-872/998-404 | 6750 (750) |

\*Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Dimensions in mm

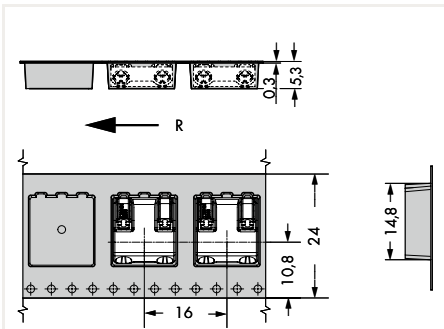


Dimensions in mm



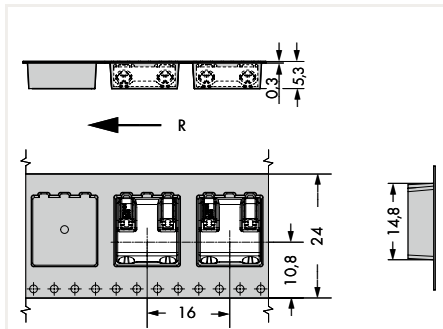
Insert/remove fine-stranded conductors by lightly pressing on push-button, e.g., via optional operating tool (206-860 or 2060-189).

Dimensions in mm



R = feed direction

Dimensions in mm



R = feed direction



Available in tape-and-reel packaging for automated assembly

1

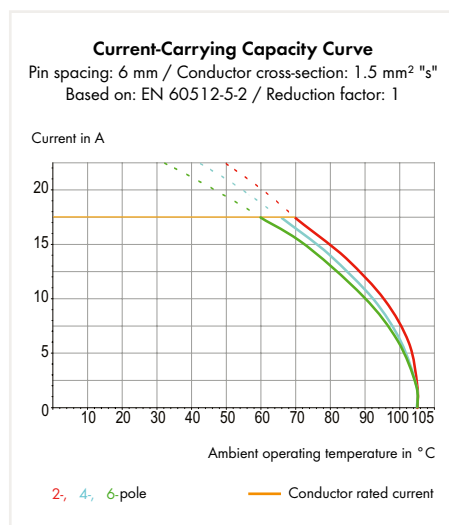
## SMD PCB Terminal Block ▶ 2061 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 6 mm / 0.24 inch ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup>

1



- SMD PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Just 5.6 mm tall
- Push-in termination of solid and ferruled conductors
- Push-button for easy connection and disconnection of all conductor types
- Available in tape-and-reel packaging for automated assembly



| Electrical Data      | 1-pole            |        |        | 2-/3-pole         |        |        |
|----------------------|-------------------|--------|--------|-------------------|--------|--------|
| Pin spacing          | 6 mm / 0.157 inch |        |        | 6 mm / 0.157 inch |        |        |
| Ratings per          | IEC/EN 60664-1    |        |        | IEC/EN 60664-1    |        |        |
| Overvoltage category | III               | III    | II     | III               | III    | II     |
| Pollution degree     | 3                 | 2      | 2      | 3                 | 2      | 2      |
| Rated voltage        | 250 V             | 320 V  | 630 V  | 250 V             | 320 V  | 630 V  |
| Rated surge voltage  | 4 kV              | 4 kV   | 4 kV   | 4 kV              | 4 kV   | 4 kV   |
| Rated current        | 17.5 A            | 17.5 A | 17.5 A | 17.5 A            | 17.5 A | 17.5 A |
| Approvals per        | UL 1059           |        |        | UL 1059           |        |        |
| Use group            | B                 | C      | D      | B                 | C      | D      |
| Rated voltage        | 600 V             | 600 V  | 600 V  | 300 V             | -      | 300 V  |
| Rated current        | 10 A              | 10 A   | 10 A   | 10 A              | -      | 10 A   |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Strip length                                      | 7 ... 10 mm / 0.28 ... 0.39 inch            |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Fine-stranded conductor                           | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.5 ... 0.75 mm <sup>2</sup>                |
| Fine-stranded conductor; with uninsulated ferrule | 0.5 ... 0.75 mm <sup>2</sup>                |

| Material Data               |                          |
|-----------------------------|--------------------------|
| Material group              | I                        |
| Insulation material         | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0                       |
| Limit temperature range     | -60 ... +105 °C          |
| Contact material            | Copper alloy             |
| Contact plating             | Tin-plated               |

### Application notes:

Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

### Recommendation for SMD stencil:

150 µm material thickness; pattern layout identical to solder pad layout

# SMD PCB Terminal Block ▶ 2061 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 6 mm / 0.24 inch ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup>

White\*; Reel diameter: 330 mm

Black; Reel diameter: 330 mm



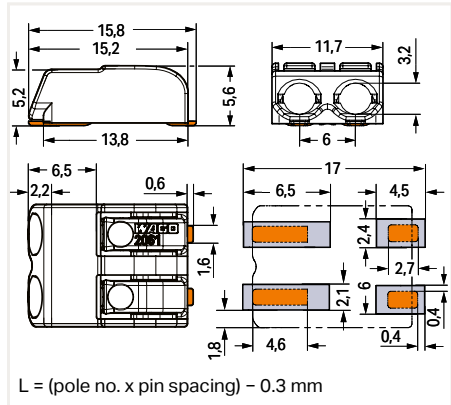
Insert solid conductors via push-in termination.

| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 1        | 2061-601/998-404 | 8100 (900) |
| 2        | 2061-602/998-404 | 6300 (700) |
| 3        | 2061-603/998-404 | 4050 (450) |

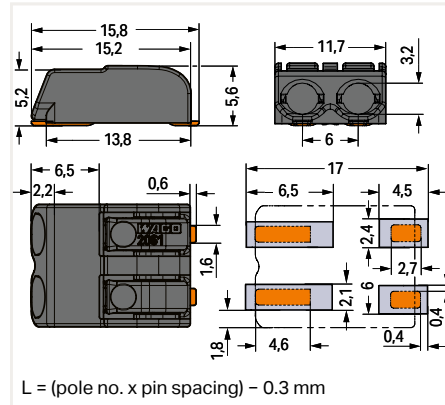
| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 1        | 2061-621/998-404 | 8100 (900) |
| 2        | 2061-622/998-404 | 6300 (700) |
| 3        | 2061-623/998-404 | 4050 (450) |

\*Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Dimensions in mm

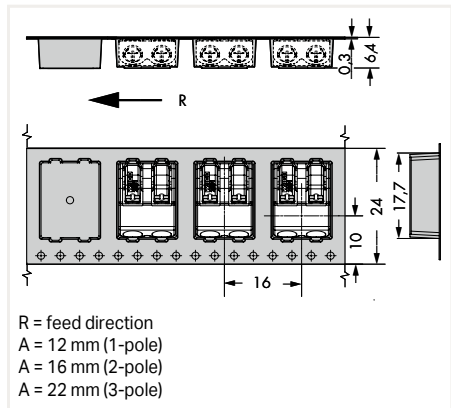


Dimensions in mm

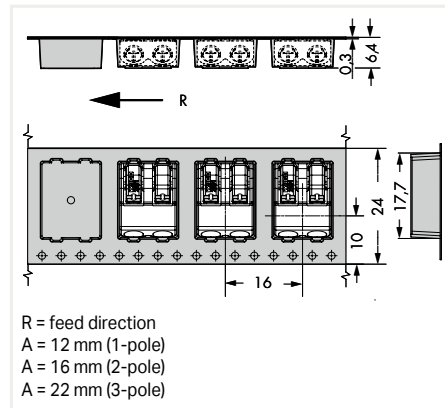


Insert/remove fine-stranded conductors by lightly pressing on push-button, e.g., via optional operating tool (206-866 or 2061-189).

Dimensions in mm



Dimensions in mm



Available in tape-and-reel packaging for automated assembly

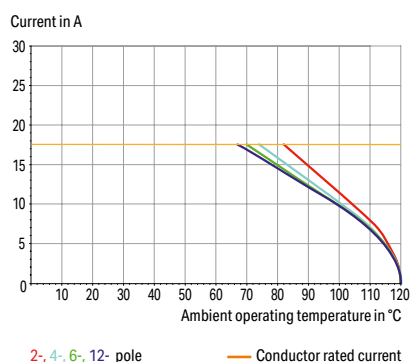
**SMD PCB Terminal Block ▶ 2086 Series**

Push-in CAGE CLAMP® ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Color: black



- Ideal for compact device connection, panel feedthrough and tight spaces
- Push-in CAGE CLAMP® termination of solid and ferruled conductors
- SMD and THR variants available
- Delivery in tape-and-reel packaging for full integration into SMT soldering process
- Push-button moves in direction of conductor connection
- Conductor connection and mating direction parallel or perpendicular to the PCB

**Current-Carrying Capacity Curve**  
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1

**Electrical Data**

| Pin spacing          | 3.5 mm / 0.138 inch |        |        |
|----------------------|---------------------|--------|--------|
| Ratings per          | IEC/EN 60664-1      |        |        |
| Overvoltage category | III                 | III    | II     |
| Pollution degree     | 3                   | 2      | 2      |
| Rated voltage        | 160 V               | 160 V  | 320 V  |
| Rated surge voltage  | 2.5 kV              | 2.5 kV | 2.5 kV |
| Rated current        | 17.5 A              | 17.5 A | 17.5 A |
| Approvals per        | UL 1059             |        |        |
| Use group            | B                   | C      | D      |
| Rated voltage        | 300 V               | -      | 300 V  |
| Rated current        | 14 A                | -      | 10 A   |
| Approvals per        | CSA                 |        |        |
| Use group            | B                   | C      | D      |
| Rated voltage        | 300 V               | -      | 300 V  |
| Rated current        | 14 A                | -      | 14 A   |

**Connection Data**

|   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inch              |
| Solid conductor                                   | 0.14 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG |
| Fine-stranded conductor                           | 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup>                |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup>                 |

**Material Data**

|                                    |  |
|------------------------------------|--|
| Material group                     | I                                      |
| Insulation material (main housing) | Polyphthalamide (PPA GF)               |
| Flammability class per UL94        | V0                                     |
| Clamping spring material           | Chrome nickel spring steel (CrNi)      |
| Contact material                   | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating                    | Tin                                    |

**Mechanical Data**

|  |  |
|--|--|
| Solder pin arrangement                   | Over the entire terminal strip (in-line) |
| Number of solder pins per potential      | 2  |
| Reel diameter of tape-and-reel packaging | 380 mm                                   |

**Environmental Requirements**

|                                  |                 |
|----------------------------------|-----------------|
| Limit temperature range          | -60 ... +105 °C |
| Processing temperature           | -35 ... +60 °C  |
| Continuous operating temperature | -60 ... +105 °C |

1

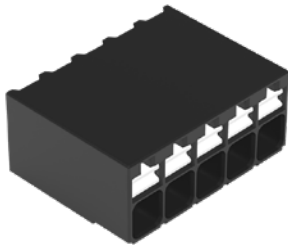


# SMD PCB Terminal Block ▶ 2086 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Color: black

Conductor connection direction to PCB 0°

Conductor connection direction to PCB 90°



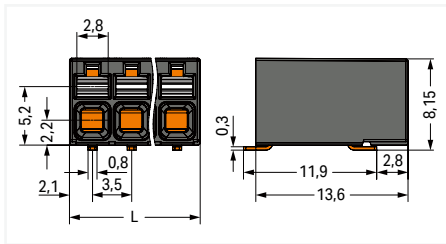
2086-1205/700-000/997-605



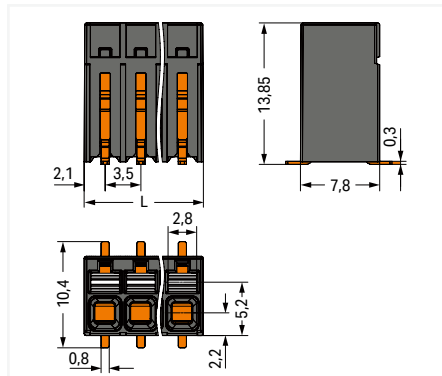
2086-1105/700-000/997-605

| Pole No. | Tape Width | Item No.                  | PU (SPU)   |
|----------|------------|---------------------------|------------|
| 2        | 24 mm      | 2086-1202/700-000/997-604 | 4635 (515) |
| 3        | 32 mm      | 2086-1203/700-000/997-605 | 3605 (515) |
| 4        | 32 mm      | 2086-1204/700-000/997-605 | 3605 (515) |
| 5        | 32 mm      | 2086-1205/700-000/997-605 | 3605 (515) |
| 6        | 56 mm      | 2086-1206/700-000/997-607 | 2060 (515) |
| 7        | 56 mm      | 2086-1207/700-000/997-607 | 2060 (515) |
| 8        | 56 mm      | 2086-1208/700-000/997-607 | 2060 (515) |
| 9        | 56 mm      | 2086-1209/700-000/997-607 | 2060 (515) |
| 10       | 56 mm      | 2086-1210/700-000/997-607 | 2060 (515) |
| 11       | 56 mm      | 2086-1211/700-000/997-607 | 2060 (515) |
| 12       | 56 mm      | 2086-1212/700-000/997-607 | 2060 (515) |

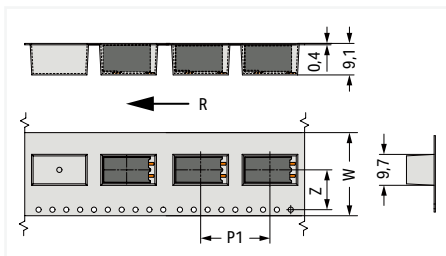
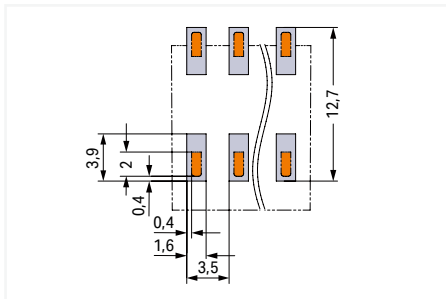
| Pole No. | Tape Width | Item No.                  | PU (SPU)   |
|----------|------------|---------------------------|------------|
| 2        | 24 mm      | 2086-1102/700-000/997-604 | 2430 (270) |
| 3        | 32 mm      | 2086-1103/700-000/997-605 | 1890 (270) |
| 4        | 32 mm      | 2086-1104/700-000/997-605 | 1890 (270) |
| 5        | 32 mm      | 2086-1105/700-000/997-605 | 1890 (270) |
| 6        | 56 mm      | 2086-1106/700-000/997-607 | 1080 (270) |
| 7        | 56 mm      | 2086-1107/700-000/997-607 | 1080 (270) |
| 8        | 56 mm      | 2086-1108/700-000/997-607 | 1080 (270) |
| 9        | 56 mm      | 2086-1109/700-000/997-607 | 1080 (270) |
| 10       | 56 mm      | 2086-1110/700-000/997-607 | 1080 (270) |
| 11       | 56 mm      | 2086-1111/700-000/997-607 | 1080 (270) |
| 12       | 56 mm      | 2086-1112/700-000/997-607 | 1080 (270) |



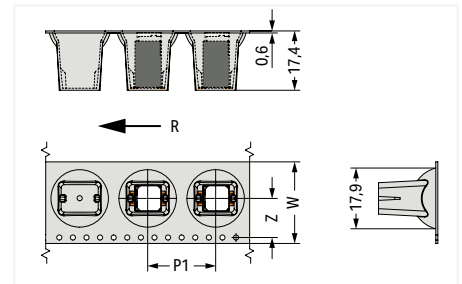
L = (pole no. - 1) x pin spacing + 4.2 mm



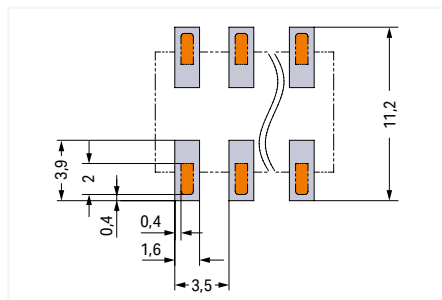
L = (pole no. - 1) x pin spacing + 4.2 mm



W= Tape width  
 R = Feed direction  
 Pole no. 2: Z = 11.5 mm  
 Pole no. 3: Z = 10.7 mm  
 Pole no. 4: Z = 12.5 mm  
 Pole no. 5: Z = 14.2 mm  
 Pole no. 6; 8; 10; 12: Z = 26.2 mm  
 Pole no. 7; 9; 11: Z = 24.5 mm



W= Tape width  
 R = Feed direction  
 Pole no. 2: Z = 11.5 mm  
 Pole no. 3 ... 5: Z = 12.4 mm  
 Pole no. 6 ... 12: Z = 26.2 mm



PU = packaging unit; PU = sub-packaging unit; dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

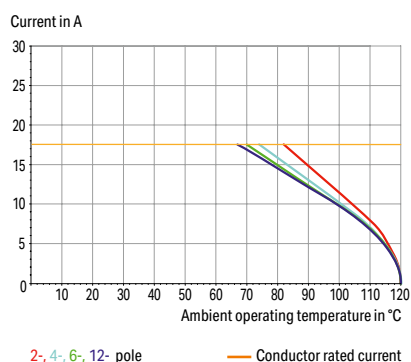
**SMD PCB Terminal Block ▶ 2086 Series**

Push-in CAGE CLAMP® ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Suitable for automated assembly ▶ Color: white



- Ideal for compact device connection, panel feedthrough and tight spaces
- Push-in CAGE CLAMP® termination of solid and ferruled fine-stranded conductors
- Delivery in tape-and-reel packaging for full integration into SMT soldering process
- Push-button moves in direction of conductor connection
- Conductor connection and mating direction both parallel and perpendicular to the PCB

**Current-Carrying Capacity Curve**  
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1

**Electrical Data**

| Pin spacing          | 3.5 mm / 0.138 inch |        |        |
|----------------------|---------------------|--------|--------|
| Ratings per          | IEC/EN 60664-1      |        |        |
| Overvoltage category | III                 | III    | II     |
| Pollution degree     | 3                   | 2      | 2      |
| Rated voltage        | 160 V               | 160 V  | 320 V  |
| Rated surge voltage  | 2.5 kV              | 2.5 kV | 2.5 kV |
| Rated current        | 17.5 A              | 17.5 A | 17.5 A |
| Approvals per        | UL 1059             |        |        |
| Use group            | B                   | C      | D      |
| Rated voltage        | 300 V               | -      | 300 V  |
| Rated current        | 14 A                | -      | 10 A   |
| Approvals per        | CSA                 |        |        |
| Use group            | B                   | C      | D      |
| Rated voltage        | 300 V               | -      | 300 V  |
| Rated current        | 14 A                | -      | 14 A   |

**Connection Data**

|   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®  |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inch                                |
| Solid conductor                                   | 0.14 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG (10 A per UL/CSA) |
| Fine-stranded conductor                           | 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 AWG (14 A per UL/CSA) |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup>                                  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup>                                   |

**Material Data**

|                             |  |
|-----------------------------|--|
| Insulation material         | Polyphthalamide (PPA GF)               |
| Flammability class per UL94 | V0                                     |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin                                    |

**Mechanical Data**

|                                    |  |
|------------------------------------|--|
| Solder pin arrangement             | Over the entire terminal strip (in-line) |
| Solder pin dimensions              | 0.3 x 0.8 mm                             |
| Plated through-hole diameter (THR) | 1 <sup>(±0.1)</sup> mm                   |

**Environmental Requirements**

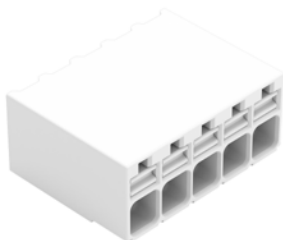
|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +105 °C |
|-------------------------|-----------------|

### SMD PCB Terminal Block ▶ 2086 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Suitable for automated assembly ▶ Color: white

Conductor connection direction to PCB 0°

Conductor connection direction to PCB 90°



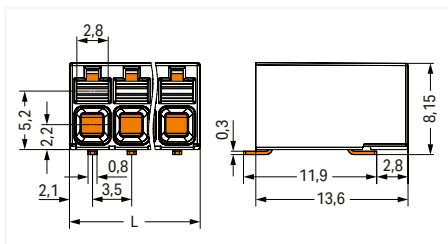
2086-1205/700-650/997-605



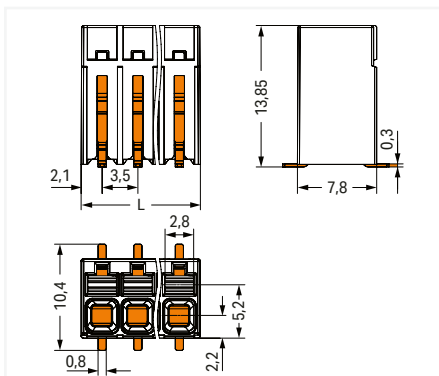
2086-1105/700-650/997-605

| Pole No. | Tape Width | Item No.                  | PU (SPU)   |
|----------|------------|---------------------------|------------|
| 2        | 24 mm      | 2086-1202/700-650/997-604 | 4635 (515) |
| 3        | 32 mm      | 2086-1203/700-650/997-605 | 3605 (515) |
| 4        | 32 mm      | 2086-1204/700-650/997-605 | 3605 (515) |
| 5        | 32 mm      | 2086-1205/700-650/997-605 | 3605 (515) |
| 6        | 56 mm      | 2086-1206/700-650/997-607 | 2060 (515) |
| 7        | 56 mm      | 2086-1207/700-650/997-607 | 2060 (515) |
| 8        | 56 mm      | 2086-1208/700-650/997-607 | 2060 (515) |
| 9        | 56 mm      | 2086-1209/700-650/997-607 | 2060 (515) |
| 10       | 56 mm      | 2086-1210/700-650/997-607 | 2060 (515) |
| 11       | 56 mm      | 2086-1211/700-650/997-607 | 2060 (515) |
| 12       | 56 mm      | 2086-1212/700-650/997-607 | 2060 (515) |

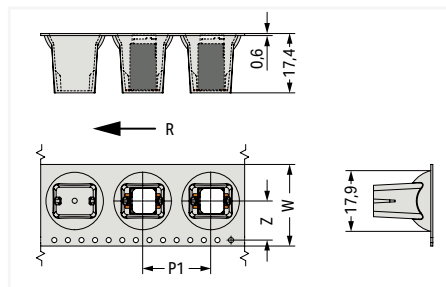
| Pole No. | Tape Width | Item No.                  | PU (SPU)   |
|----------|------------|---------------------------|------------|
| 2        | 24 mm      | 2086-1102/700-650/997-604 | 2430 (270) |
| 3        | 32 mm      | 2086-1103/700-650/997-605 | 1890 (270) |
| 4        | 32 mm      | 2086-1104/700-650/997-605 | 1890 (270) |
| 5        | 32 mm      | 2086-1105/700-650/997-605 | 1890 (270) |
| 6        | 56 mm      | 2086-1106/700-650/997-607 | 1080 (270) |
| 7        | 56 mm      | 2086-1107/700-650/997-607 | 1080 (270) |
| 8        | 56 mm      | 2086-1108/700-650/997-607 | 1080 (270) |
| 9        | 56 mm      | 2086-1109/700-650/997-607 | 1080 (270) |
| 10       | 56 mm      | 2086-1110/700-650/997-607 | 1080 (270) |
| 11       | 56 mm      | 2086-1111/700-650/997-607 | 1080 (270) |
| 12       | 56 mm      | 2086-1112/700-650/997-607 | 1080 (270) |



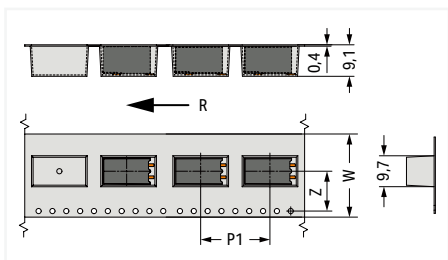
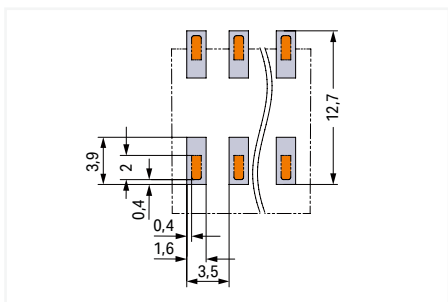
$L = (\text{pole no.} - 1) \times \text{pin spacing} + 4.2 \text{ mm}$



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 4.2 \text{ mm}$



W= Tape width  
 R = Feed direction  
 Pole no. 2: Z = 11.5 mm  
 Pole no. 3... 5: Z = 12.4 mm  
 Pole no. 6... 12: Z = 26.2 mm



W= Tape width  
 R = Feed direction  
 Pole no. 2: Z = 11.5 mm  
 Pole no. 3: Z = 10.7 mm  
 Pole no. 4: Z = 12.5 mm  
 Pole no. 5: Z = 14.2 mm  
 Pole no. 6; 8; 10; 12: Z = 26.2 mm  
 Pole no. 7; 9; 11: Z = 24.5 mm

PU = packaging unit; PU = sub-packaging unit; dimensions in mm

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## Board-to-Board Link for SMD PCB Terminal Blocks ▶ 2059 Series

Pin spacing: 3 mm (0.118 inch) ▶ 0.5 mm<sup>2</sup>

1



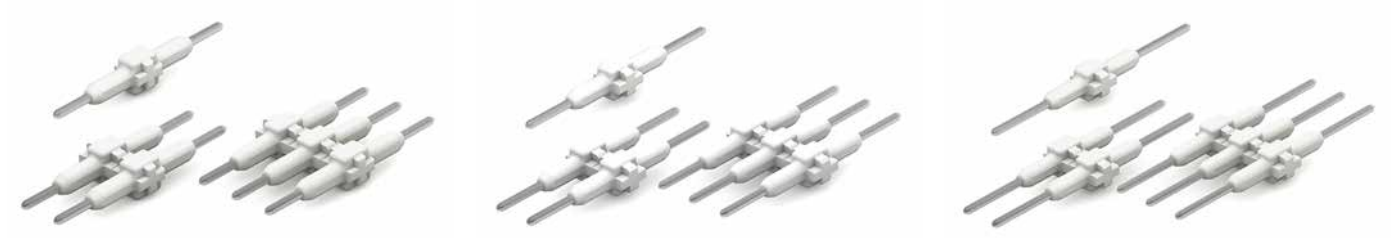
- Board-to-board link simplifies LED module assembly
- Easy push-in connection and disconnection

| Electrical Data             | 1-pole            |        |        | 2-/3-pole         |        |        |
|-----------------------------|-------------------|--------|--------|-------------------|--------|--------|
| Pin spacing                 | 3 mm / 0.118 inch |        |        | 3 mm / 0.118 inch |        |        |
| Ratings per                 | IEC/EN 60664-1    |        |        | IEC/EN 60664-1    |        |        |
| Overvoltage category        | III               | III    | II     | III               | III    | II     |
| Pollution degree            | 3                 | 2      | 2      | 3                 | 2      | 2      |
| Rated voltage               | 63 V              | 160 V  | 320 V  | 63 V              | 160 V  | 320 V  |
| Rated surge voltage         | 2.5 kV            | 2.5 kV | 2.5 kV | 2.5 kV            | 2.5 kV | 2.5 kV |
| Rated current               | 3 A               | 3 A    | 3 A    | 3 A               | 3 A    | 3 A    |
| Approvals per               | UL 1977           |        |        | UL 1977           |        |        |
| Rated voltage               | 250 V             |        |        | 250 V             |        |        |
| Rated current               | 3 A               |        |        | 3 A               |        |        |
| Approvals per               | UL 1059           |        |        | UL 1059           |        |        |
| Use group                   | B                 | C      | D      | B                 | C      | D      |
| Rated voltage               | 600 V             | 600 V  | 600 V  | 150 V             | -      | -      |
| Rated current               | 5 A               | 5 A    | 5 A    | 5 A               | -      | -      |
| Material Data               |                   |        |        |                   |        |        |
| Material group              | I                 |        |        |                   |        |        |
| Insulation material         | Polyamide (PA 66) |        |        |                   |        |        |
| Flammability class per UL94 | V0                |        |        |                   |        |        |
| Limit temperature range     | -60 ... +105 °C   |        |        |                   |        |        |
| Contact material            | Copper alloy      |        |        |                   |        |        |
| Contact plating             | Silver-plated     |        |        |                   |        |        |

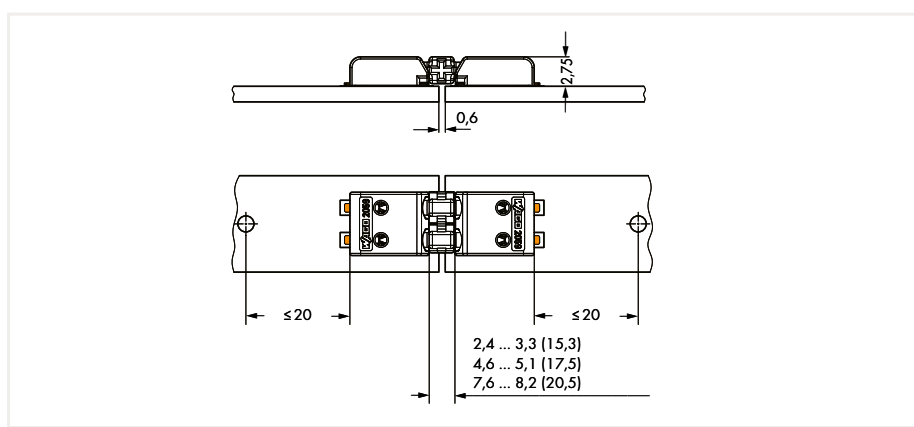
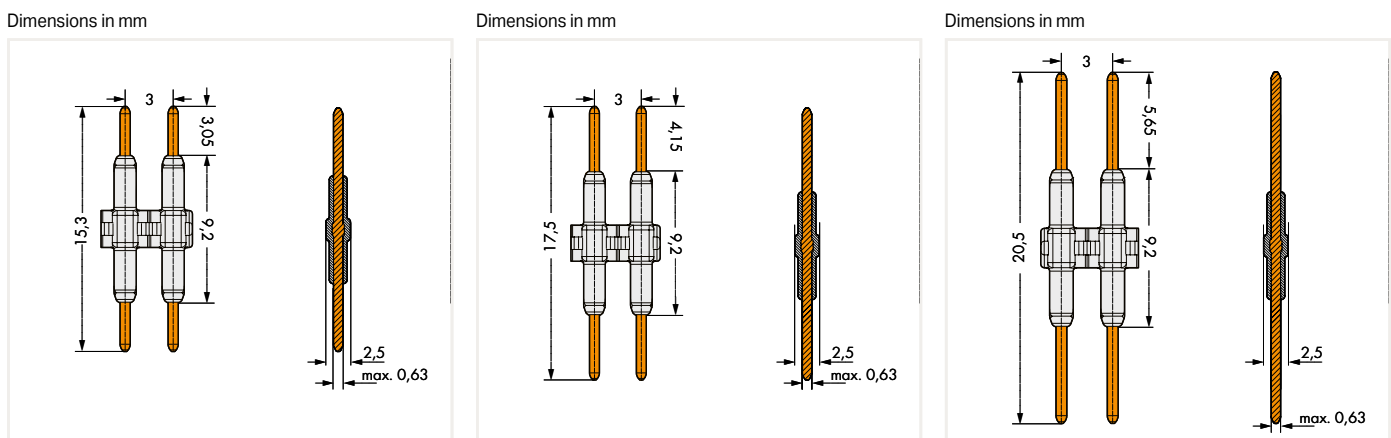
# Board-to-Board Link for SMD PCB Terminal Blocks ▶ 2059 Series

Pin spacing: 3 mm (0.118 inch) ▶ 0.5 mm<sup>2</sup>

Pin length: 15.3 mm      Pin length: 17.5 mm      Pin length: 20.5 mm



| Pole No. | Item No. | PU   | Pole No. | Item No.         | PU   | Pole No. | Item No.         | PU   |
|----------|----------|------|----------|------------------|------|----------|------------------|------|
| 1        | 2059-901 | 1500 | 1        | 2059-901/018-000 | 1500 | 1        | 2059-901/021-000 | 1500 |
| 2        | 2059-902 | 500  | 2        | 2059-902/018-000 | 500  | 2        | 2059-902/021-000 | 500  |
| 3        | 2059-903 | 375  | 3        | 2059-903/018-000 | 375  | 3        | 2059-903/021-000 | 375  |
| 4        | 2059-904 | 250  | 4        | 2059-904/018-000 | 250  | 4        | 2059-904/021-000 | 250  |



Inserting a board-to-board link into the terminal block.      Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-to-board link. Disassembly: Pull PCBs apart (max. 10 mating cycles).      The PCBs must be secured.

## Board-to-Board Link for SMD PCB Terminal Blocks ▶ 2060 Series

### 0.75 mm<sup>2</sup>

1



- Board-to-board link simplifies in-line assembly of LED modules
- Easy push-in connection and disconnection without push-button actuation

| Electrical Data      |                   |        |        |                   |       |        |
|----------------------|-------------------|--------|--------|-------------------|-------|--------|
| Pin spacing          | 4 mm / 0.157 inch |        |        | 8 mm / 0.314 inch |       |        |
| Ratings per          | IEC/EN 60664-1    |        |        | IEC/EN 60664-1    |       |        |
| Overvoltage category | III               | III    | II     | III               | III   | II     |
| Pollution degree     | 3                 | 2      | 2      | 3                 | 2     | 2      |
| Rated voltage        | 63 V              | 160 V  | 320 V  | 400 V             | 630 V | 1000 V |
| Rated surge voltage  | 2.5 kV            | 2.5 kV | 2.5 kV | 6 kV              | 6 kV  | 6 kV   |
| Rated current        | 9 A               | 9 A    | 9 A    | 9 A               | 9 A   | 9 A    |
| Approvals per        | UL 1977           |        |        | UL 1977           |       |        |
| Rated voltage        | 320 V             |        |        | 320 V             |       |        |
| Rated current        | 9 A               |        |        | 9 A               |       |        |

| Material Data               |                   |
|-----------------------------|-------------------|
| Material group              | I                 |
| Insulation material         | Polyamide (PA 66) |
| Flammability class per UL94 | V0                |
| Limit temperature range     | -60 ... +105 °C   |
| Contact material            | Copper alloy      |
| Contact plating             | Silver-plated     |



# Board-to-Board Link for SMD PCB Terminal Blocks ▶ 2060 Series 0.75 mm<sup>2</sup>

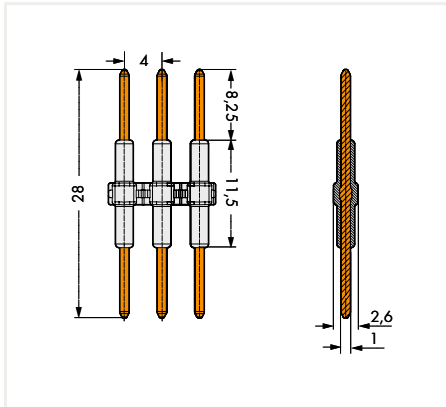
Pin spacing: 4 mm/0.157 inch; Pin length: 28 mm; white

Pin spacing: 8 mm/0.314 inch; Pin length: 28 mm; white

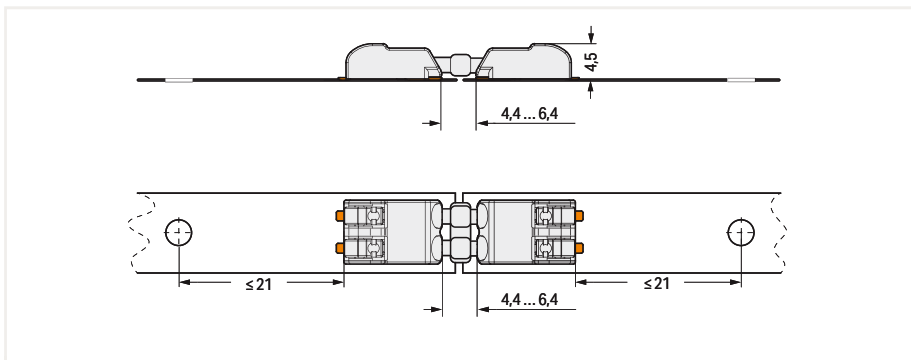
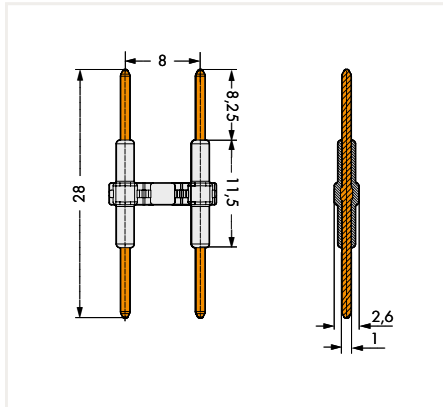


| Pole No. | Item No.         | PU   | Pole No. | Item No.         | PU  |
|----------|------------------|------|----------|------------------|-----|
| 1        | 2060-951/028-000 | 1500 | 2        | 2060-962/028-000 | 375 |
| 2        | 2060-952/028-000 | 500  |          |                  |     |
| 3        | 2060-953/028-000 | 375  |          |                  |     |
| 4        | 2060-954/028-000 | 250  |          |                  |     |

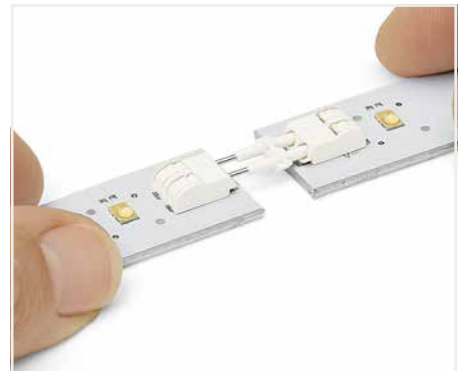
Dimensions in mm



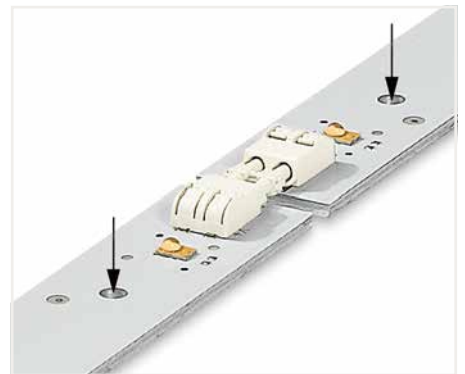
Dimensions in mm



Inserting a board-to-board link into the terminal block.



Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-to-board link. Disassembly: Pull PCBs apart (max. 10 mating cycles).



The PCBs must be secured.

1

## Board-to-Board Link for SMD PCB Terminal Blocks ▶ 2061 Series

Pin spacing: 6 mm ▶ 1.5 mm<sup>2</sup>

1



- Board-to-board link simplifies LED module assembly
- Easy push-in connection and disconnection without push-button actuation

### Electrical Data

|                      |                   |       |       |
|----------------------|-------------------|-------|-------|
| Pin spacing          | 6 mm / 0.236 inch |       |       |
| Ratings per          | IEC/EN 60664-1    |       |       |
| Overvoltage category | III               | III   | II    |
| Pollution degree     | 3                 | 2     | 2     |
| Rated voltage        | 250 V             | 320 V | 630 V |
| Rated surge voltage  | 4 kV              | 4 kV  | 4 kV  |
| Rated current        | 9 A               | 9 A   | 9 A   |
| Approvals per        | UL 1059           |       |       |
| Use group            | B                 | C     | D     |
| Rated voltage        | 300 V             | -     | 300 V |
| Rated current        | 10 A              | -     | 10 A  |

### Material Data

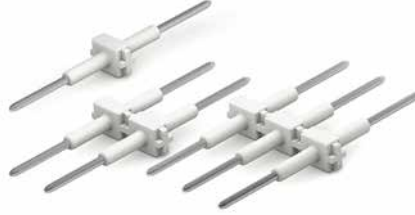
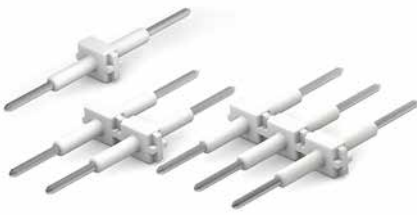
|                             |                   |
|-----------------------------|-------------------|
| Material group              | I                 |
| Insulation material         | Polyamide (PA 66) |
| Flammability class per UL94 | V0                |
| Limit temperature range     | -60 ... +105 °C   |
| Contact material            | Copper alloy      |
| Contact plating             | Silver-plated     |

# Board-to-Board Link for SMD PCB Terminal Blocks ▶ 2061 Series

Pin spacing: 6 mm ▶ 1.5 mm<sup>2</sup>

Pin length: 30 mm; white

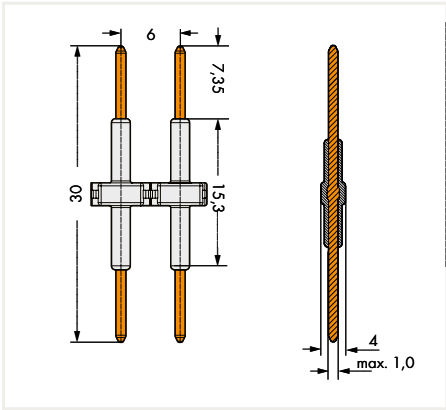
Pin length: 34 mm; white



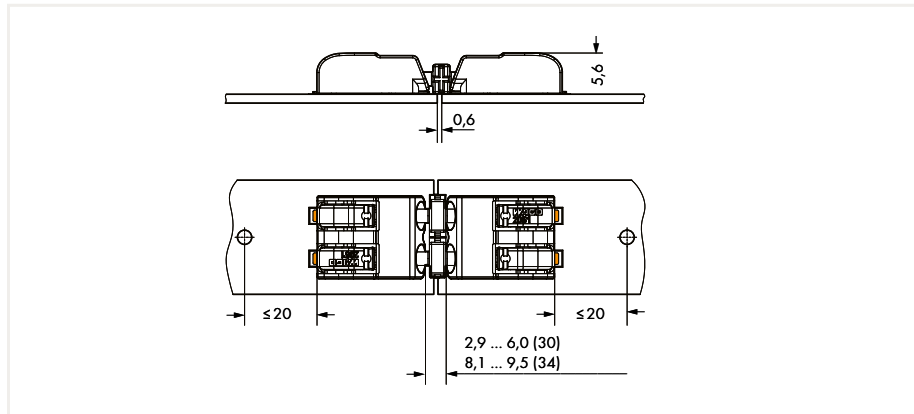
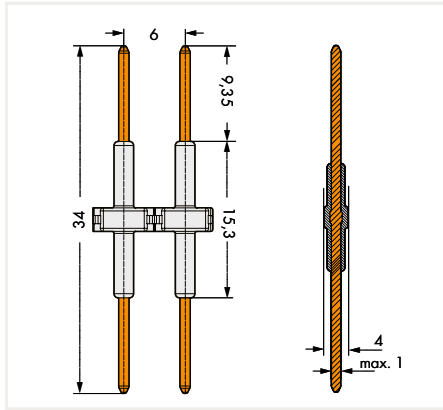
| Pole No. | Item No. | PU  |
|----------|----------|-----|
| 1        | 2061-901 | 700 |
| 2        | 2061-902 | 300 |
| 3        | 2061-903 | 200 |
| 4        | 2061-904 | 100 |

| Pole No. | Item No.         | PU  |
|----------|------------------|-----|
| 1        | 2061-901/034-000 | 700 |
| 2        | 2061-902/034-000 | 300 |
| 3        | 2061-903/034-000 | 200 |
| 4        | 2061-904/034-000 | 100 |

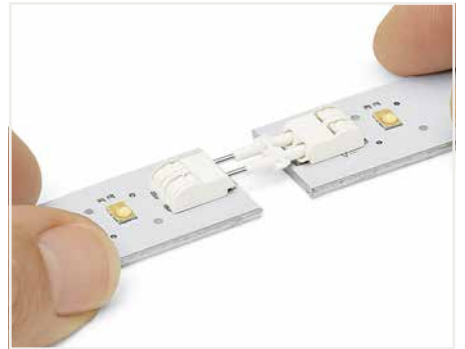
Dimensions in mm



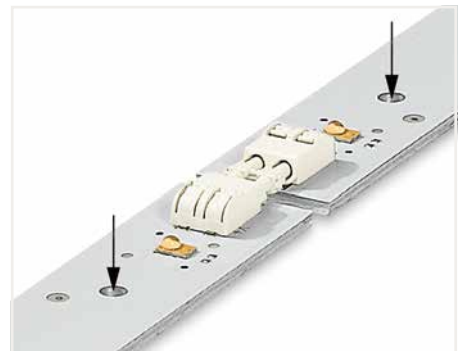
Dimensions in mm



Inserting a board-to-board link into the terminal block.



Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-to-board link. Disassembly: Pull PCBs apart (max. 10 mating cycles).



The PCBs must be secured.

1

## Board-to-Board Link for SMD PCB Terminal Blocks ▶ 2065 Series

1



- Board-to-board link simplifies in-line assembly of LED modules
- Space saving connection of PCBs

### Electrical Data

| Ratings per          | IEC/EN 60664-1 |       |       |
|----------------------|----------------|-------|-------|
| Overvoltage category | III            | III   | II    |
| Pollution degree     | 3              | 2     | 2     |
| Rated voltage        | 250 V          | 320 V | 630 V |
| Rated surge voltage  | 4 kV           | 4 kV  | 4 kV  |
| Rated current        | 9 A            | 9 A   | 9 A   |
| Approvals per        | UL 1977        |       |       |
| Rated voltage        | 600 V          |       |       |
| Rated current        | 9 A            |       |       |

### Material Data

|                  |               |
|------------------|---------------|
| Contact material | Copper alloy  |
| Contact plating  | Silver-plated |

### Environmental Requirements

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +120 °C |
|-------------------------|-----------------|

The layout must meet the requirements of the insulation coordination standard EN/IEC 60664-1 and applicable end product standards.

**NOTE: Terminal block without insulation housing! Protection against accidental contact must be provided at voltages higher than low voltages (e.g., SELV/PELV) for the relevant application.**

# Board-to-Board Link for SMD PCB Terminal Blocks ▶ 2065 Series

1

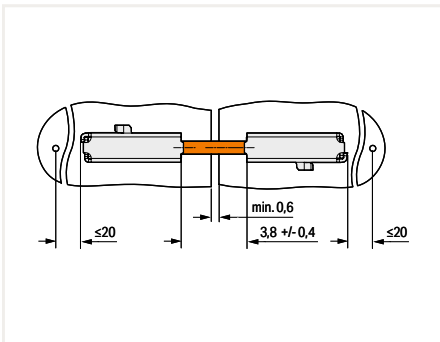
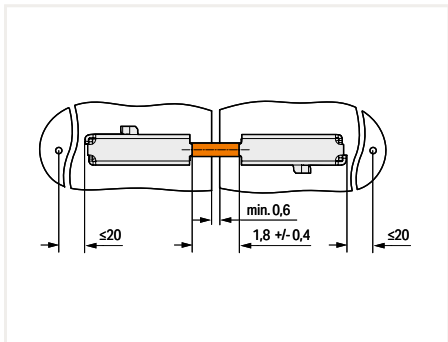
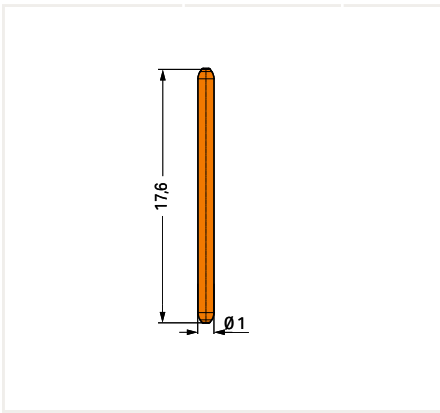
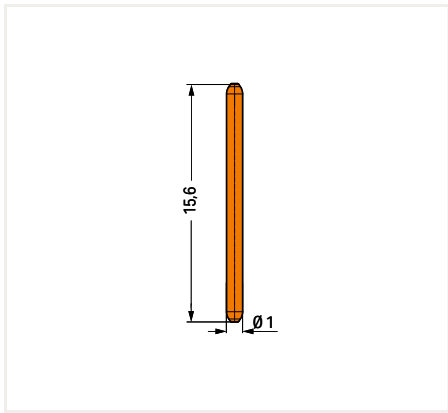
Pin length: 15.6 mm

Pin length: 17.6 mm



| Item Number | PU   |
|-------------|------|
| 2065-131    | 1500 |

| Item Number | PU   |
|-------------|------|
| 2065-133    | 1500 |



Inserting a board-to-board link into the terminal block.

Assembly: Place PCBs on a flat surface and insert links into terminal blocks on adjoining PCBs. Disassembly: Open the terminal blocks with an operating tool (max. 5 mating cycles).

The PCBs must be secured.

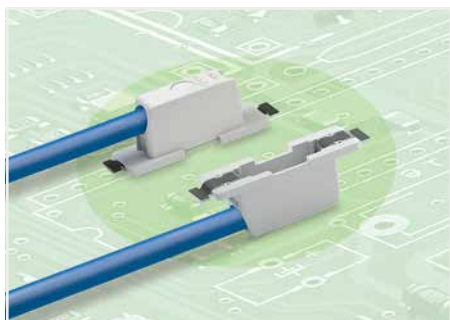
PU = packaging unit; dimensions in mm



## SMD Through-Board PCB Terminal Block ▶ 2070 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 6.5 mm / 0.256 inch ▶ Actuation type: operating tool ▶ 0.75 mm<sup>2</sup> ▶ Color: white

1



- SMD PCB terminal block with Push-in CAGE CLAMP® for back-side wiring of LED modules
- Low profile of just 1.1 mm on the module's front side
- Push-in termination of solid conductors
- Insert fine-stranded conductors and remove all conductors via operating tool

| Electrical Data      | FR4 PCB Type        |       |       | Metal-Core PCBs     |       |       |
|----------------------|---------------------|-------|-------|---------------------|-------|-------|
| Pin spacing          | 6.5 mm / 0.256 inch |       |       | 6.5 mm / 0.256 inch |       |       |
| Ratings per          | IEC/EN 60664-1      |       |       | IEC/EN 60664-1      |       |       |
| Overvoltage category | III                 | III   | II    | III                 | III   | II    |
| Pollution degree     | 3                   | 2     | 2     | 3                   | 2     | 2     |
| Rated voltage        | 320 V               | 320 V | 630 V | 200 V               | 320 V | 500 V |
| Rated surge voltage  | 4 kV                | 4 kV  | 4 kV  | 4 kV                | 4 kV  | 4 kV  |
| Rated current        | 9 A                 | 9 A   | 9 A   | 9 A                 | 9 A   | 9 A   |
| Approvals per        | UL 1977             |       |       | UL 1977             |       |       |
| Rated voltage        | 600 V               |       |       | 600 V               |       |       |
| Rated current        | 9 A                 |       |       | 9 A                 |       |       |

| Connection Data                  |  |
|----------------------------------|--|
| Connection technology            | Push-in CAGE CLAMP®                          |
| Strip length                     | 8 ... 10 mm / 0.31 ... 0.39 inch             |
| Conductor entry angle to the PCB | 0°   |
| Conductor cross-sections         |  |
| Solid conductor                  | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor          | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |

| Material Data               |                          |
|-----------------------------|--------------------------|
| Material group              | I                        |
| Insulation material         | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0                       |
| Limit temperature range     | -60 ... +105 °C          |
| Contact material            | Copper alloy             |
| Contact plating             | Tin-plated               |

Clearances and creepage distances ≥ 3.0 mm:  
500 V in applications per EN 60598-1

# SMD Through-Board PCB Terminal Block ▶ 2070 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 6.5 mm / 0.256 inch ▶ Actuation type: operating tool ▶ 0.75 mm<sup>2</sup> ▶ Color: white

Reel diameter: 330 mm



Reel diameter: 330 mm



Reel diameter: 330 mm

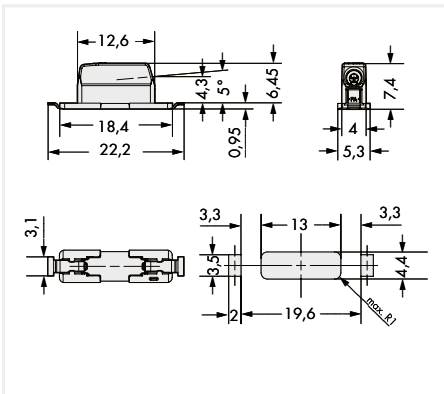


| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 1        | 2070-461/998-406 | 4770 (954) |

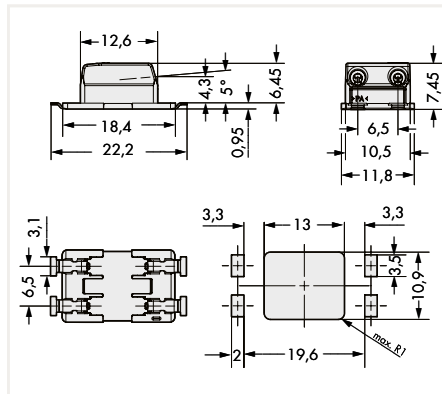
| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 2        | 2070-462/998-406 | 2385 (477) |

| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 3        | 2070-463/998-406 | 1590 (318) |

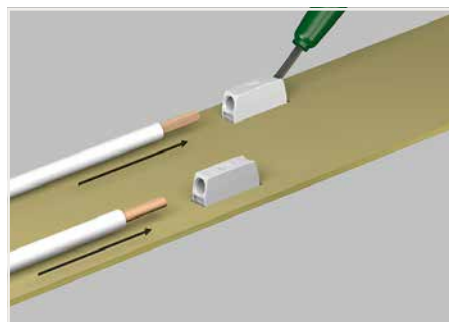
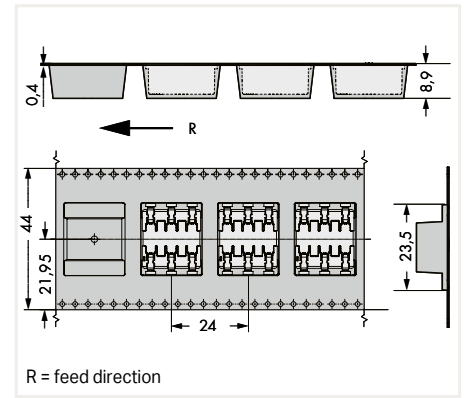
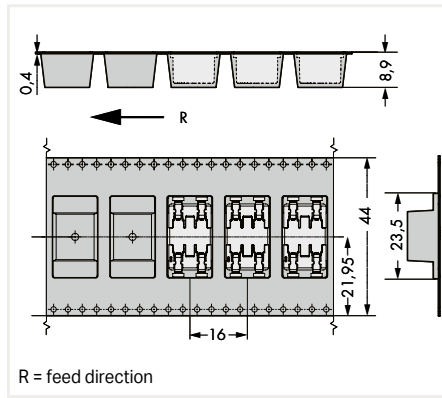
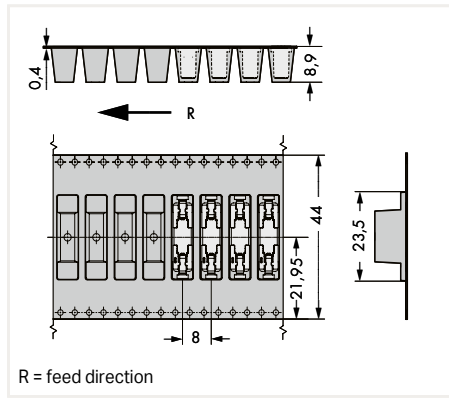
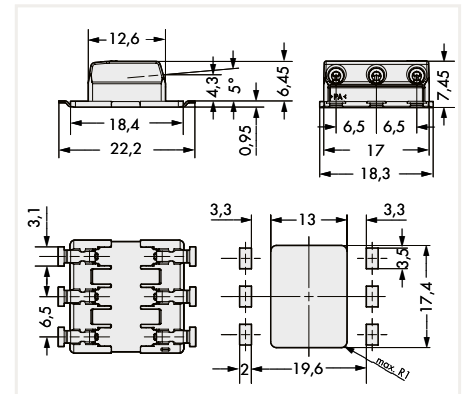
Dimensions in mm



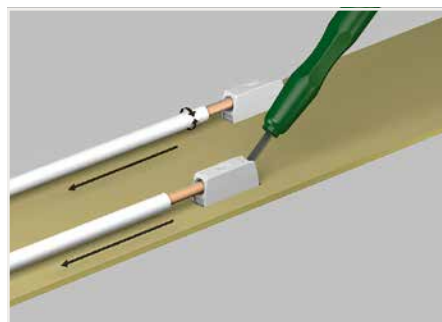
Dimensions in mm



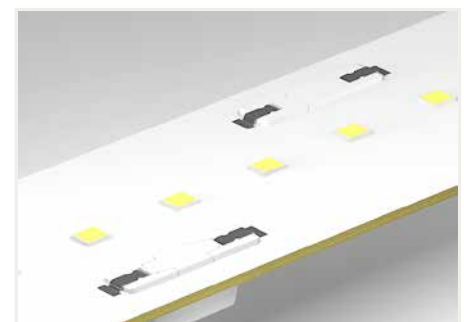
Dimensions in mm



Insert fine-stranded conductors and remove all conductor types via operating tool. Solid conductors can also be terminated by simply pushing them in.



Use an operating tool or simply "twist and pull" to remove solid conductors.



The variants with cover feature a center contact surface for easy pick-and-place assembly and minimum shadowing.

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Reel diameter of tape-and-reel packaging: 381 mm

# SMD Through-Board PCB Terminal Block ▶ 2070 Series

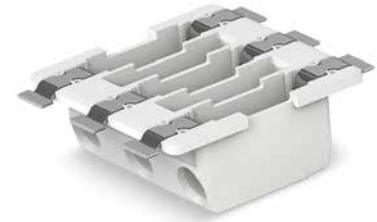
**PUSH-IN CAGE CLAMP®**

Push-in CAGE CLAMP® ▶ Pin spacing: 6.5 mm / 0.256 inch ▶ Actuation type: operating tool ▶ 0.75 mm<sup>2</sup> ▶ Color: white

Reel diameter: 330 mm

Reel diameter: 330 mm

Reel diameter: 330 mm

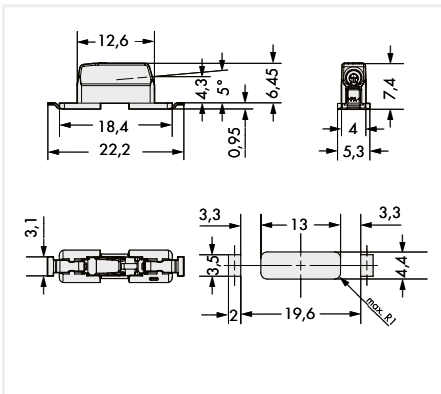


| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 1        | 2070-451/998-406 | 4770 (954) |

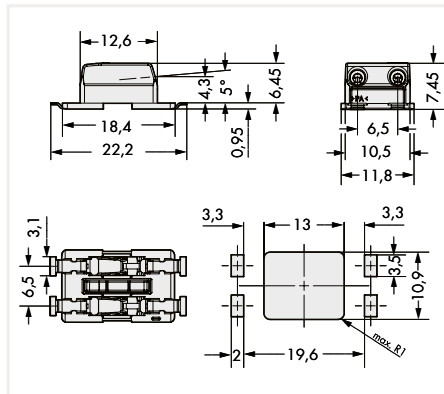
| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 2        | 2070-452/998-406 | 2385 (477) |

| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 3        | 2070-453/998-406 | 1590 (318) |

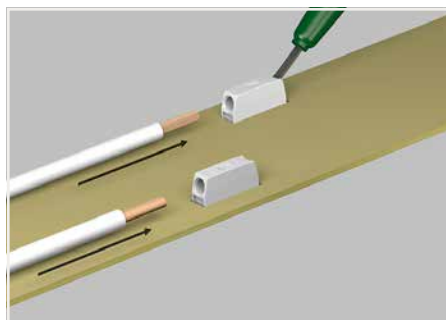
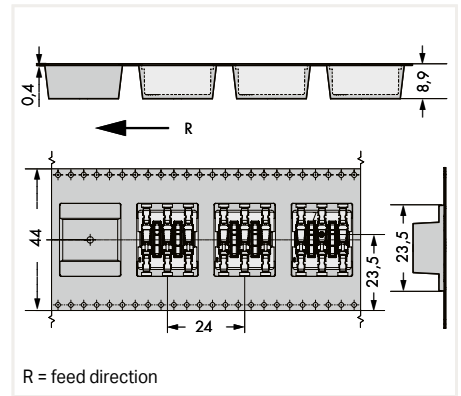
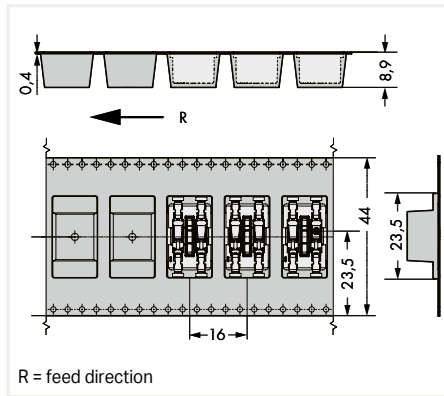
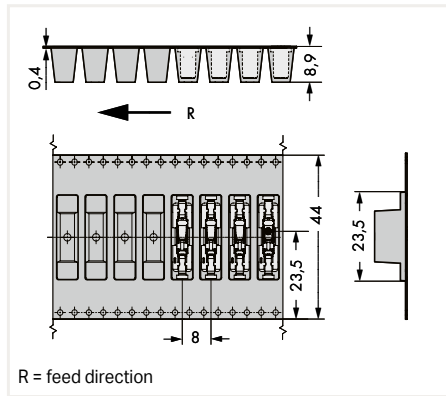
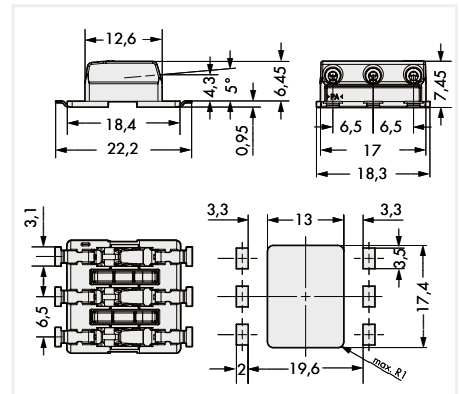
Dimensions in mm



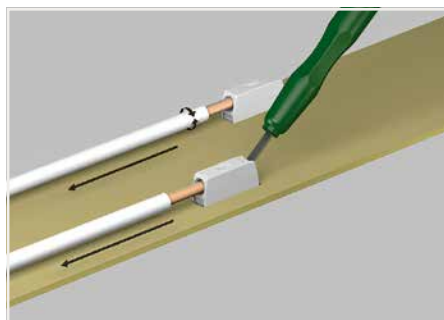
Dimensions in mm



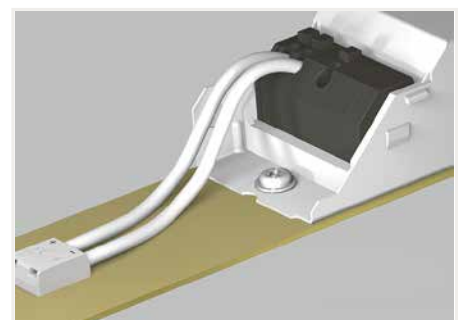
Dimensions in mm



Insert fine-stranded conductors and remove all conductor types via operating tool. Solid conductors can also be terminated by simply pushing them in.



Use an operating tool or simply "twist and pull" to remove solid conductors.



Shift wiring to the back of the LED module via 2070 Series SMD PCB Terminal Blocks.

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Reel diameter of tape-and-reel packaging: 381 mm

# SMD Through-Board PCB Terminal Block ▶ 2070 Series

Push-in CAGE CLAMP® ▶ Pin spacing: 6.5 mm / 0.256 inch ▶ Actuation type: operating tool ▶ 0.75 mm<sup>2</sup> ▶ Color: white

Marking (+); Reel diameter: 330 mm

Marking (+ -); Reel diameter: 330 mm

Marking (+ - plain); Reel diameter: 330 mm

1

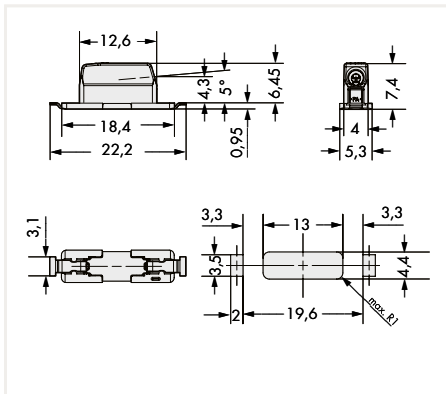


| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 1        | 2070-521/998-406 | 4770 (954) |

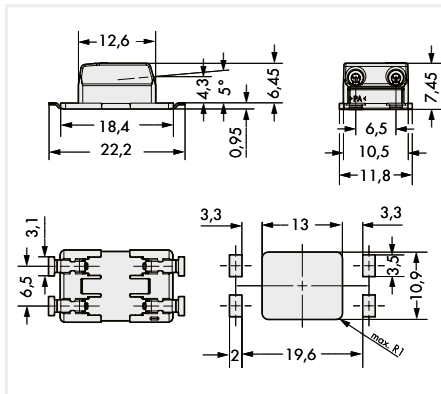
| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 2        | 2070-522/998-406 | 2385 (477) |

| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 3        | 2070-523/998-406 | 1590 (318) |

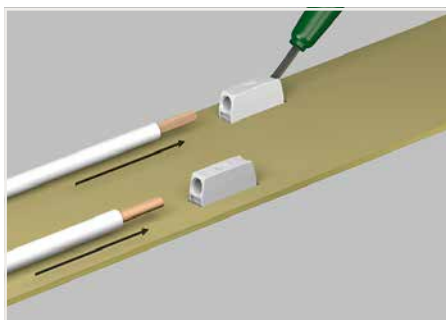
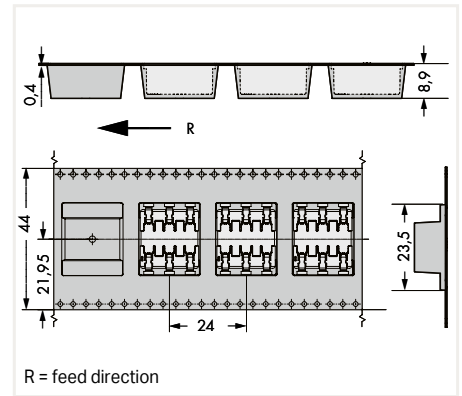
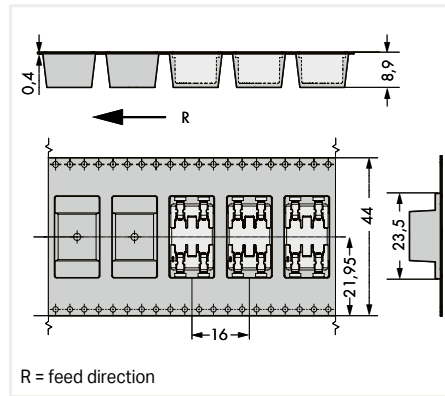
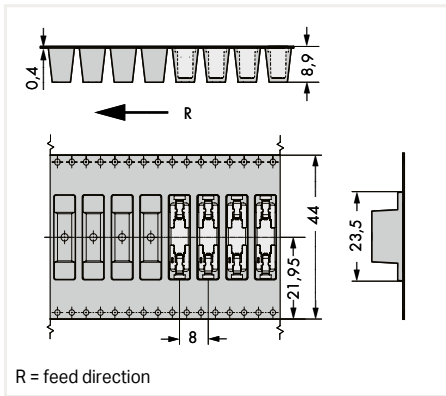
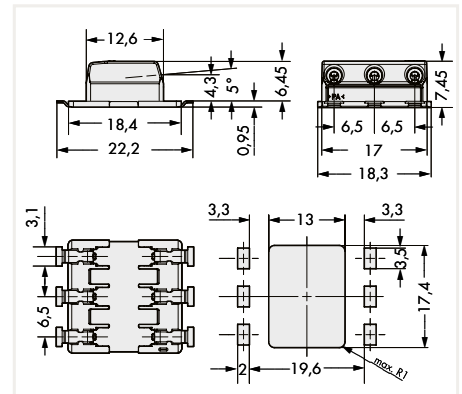
Dimensions in mm



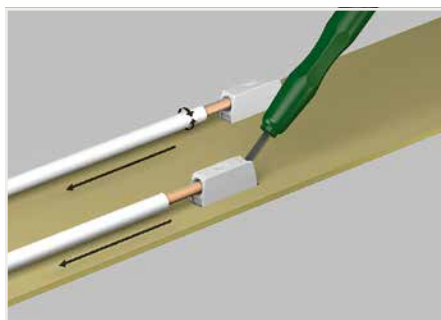
Dimensions in mm



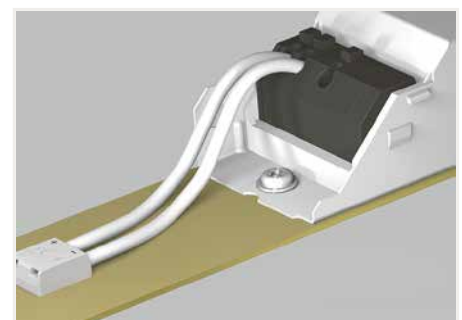
Dimensions in mm



Insert fine-stranded conductors and remove all conductor types via operating tool. Solid conductors can also be terminated by simply pushing them in.



Use an operating tool or simply "twist and pull" to remove solid conductors.



The printed variants offer unique pole marking on the back of the module.

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Reel diameter of tape-and-reel packaging: 381 mm

# SMD Through-Board PCB Terminal Block ▶ 2070 Series

**PUSH-IN CAGE CLAMP®**

Push-in CAGE CLAMP® ▶ Pin spacing: 6.5 mm / 0.256 inch ▶ Actuation type: operating tool ▶ 0.75 mm<sup>2</sup> ▶ Color: white

1

Marking (-); Reel diameter: 330 mm

Marking (- +); Reel diameter: 330 mm

Marking (plain - +); Reel diameter: 330 mm

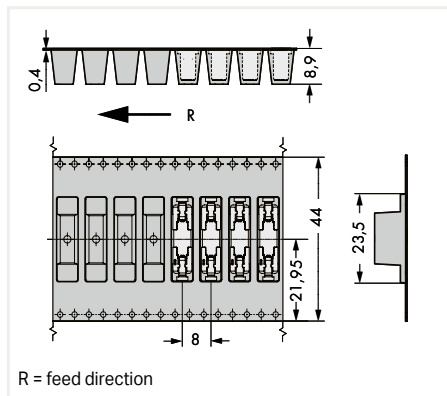
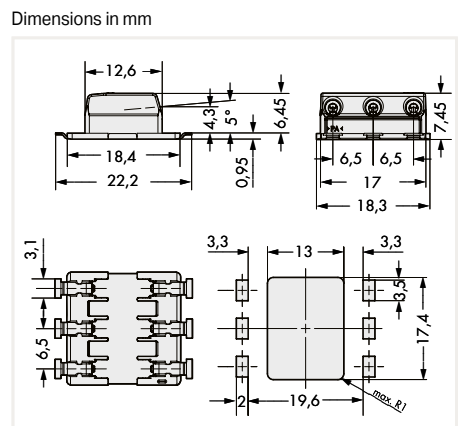
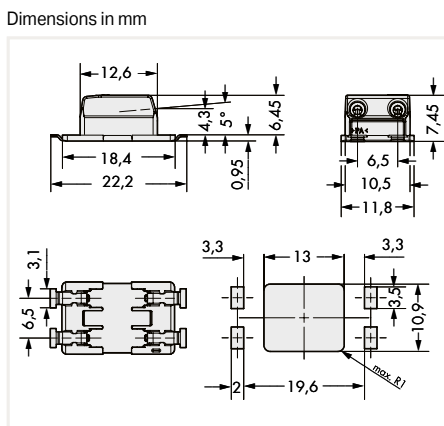
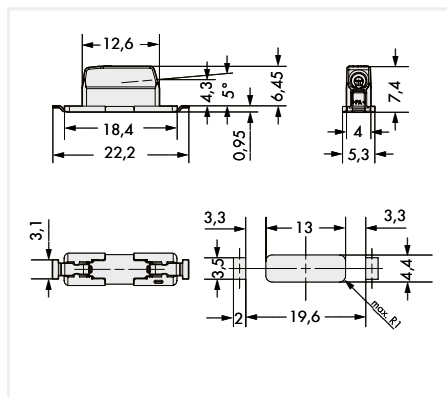


| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 1        | 2070-541/998-406 | 4770 (954) |

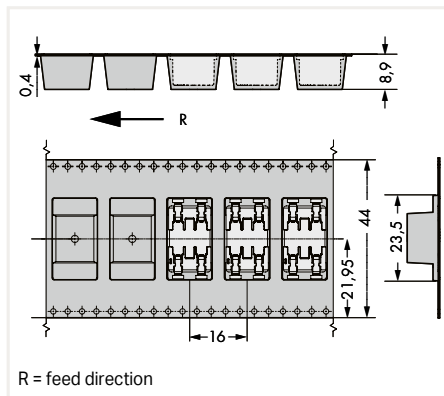
| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 2        | 2070-542/998-406 | 2385 (477) |

| Pole No. | Item No.         | PU         |
|----------|------------------|------------|
| 3        | 2070-543/998-406 | 1590 (318) |

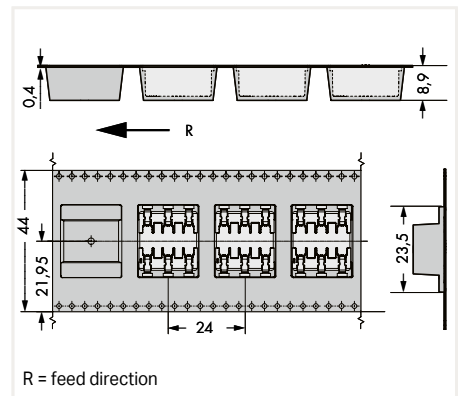
Dimensions in mm



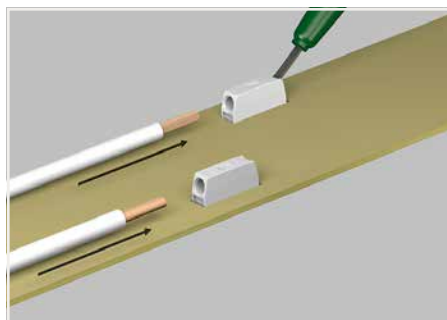
R = feed direction



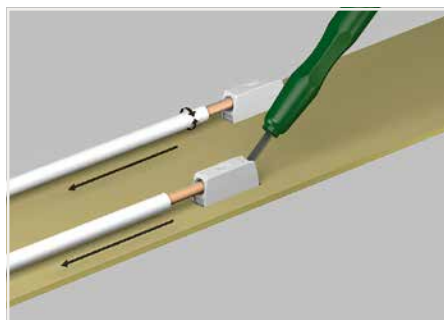
R = feed direction



R = feed direction



Insert fine-stranded conductors and remove all conductor types via operating tool. Solid conductors can also be terminated by simply pushing them in.



Use an operating tool or simply "twist and pull" to remove solid conductors.



The printed variants offer unique pole marking on the back of the module.

Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

- Reel diameter of tape-and-reel packaging: 381 mm

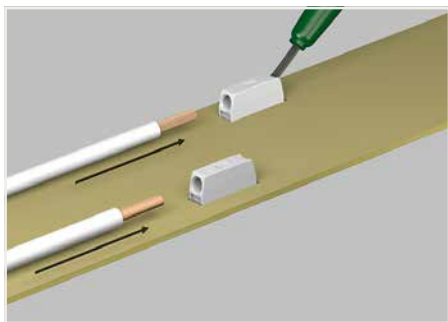


# Operating tool

1



| Item No. | PU |
|----------|----|
| 2070-400 | 1  |



Insert fine-stranded conductors and remove all conductor types via operating tool. Solid conductors can also be terminated by simply pushing them in.

## SMD Through-Board PCB Terminal Block ▶ 2075 Series

1



- For vertical wiring
- Wiring performed on the back of the LED module simplifies lighting manufacturing
- Low installation height minimizes on-board LED shadowing
- Compact design provides uniform light distribution
- An economical alternative to wire soldering
- Supports both manual and automated wiring

| Electrical Data      |                   |     |       |
|----------------------|-------------------|-----|-------|
| Width                | 3 mm / 0.118 inch |     |       |
| Ratings per          | IEC/EN 60664-1    |     |       |
| Overvoltage category | III               | III | II    |
| Pollution degree     | 3                 | 2   | 2     |
| Rated voltage        | 200 V             | –   | 500 V |
| Rated surge voltage  | 4 kV              | –   | 4 kV  |
| Rated current        | 9 A               | 9 A | 9 A   |
| Approvals per        | UL 1977           |     |       |
| Rated voltage        | 600 V             |     |       |
| Rated current        | 9 A               |     |       |

| Connection Data                  |   |
|----------------------------------|---|
| Connection technology            | PUSH WIRE®                                    |
| Strip length                     | 3.7 mm / 0.15 inch                            |
| Conductor entry angle to the PCB | 90°   |
| Conductor cross-sections         |   |
| Solid conductor                  | 0.34 ... 0.75 mm <sup>2</sup> / 20 ... 18 AWG |

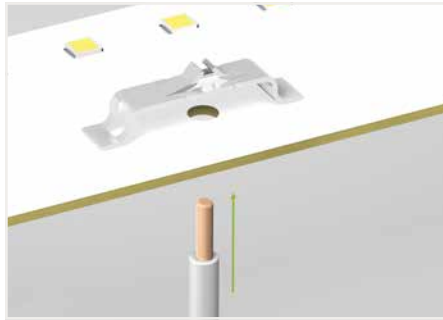
| Material Data           |                           |
|-------------------------|---------------------------|
| Limit temperature range | –60 ... +105 °C           |
| Contact material        | Electrolytic copper (Ecu) |
| Contact plating         | Tin-plated                |

### Note:

Terminal block without insulation housing!  
Protection against accidental contact must be provided at voltages higher than low voltages (e.g., SELV/PELV) for the relevant application.

# SMD Through-Board PCB Terminal Block ▶ 2075 Series

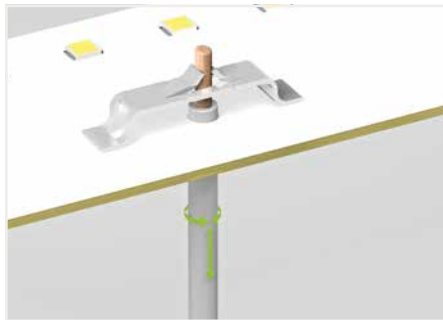
Reel diameter: 330 mm



Insert solid conductors via push-in termination.

| Pole No. | Item No.         | PU           |
|----------|------------------|--------------|
| 1        | 2075-381/997-404 | 18000 (2000) |

Dimensions in mm



Simply twist and pull to remove conductors – no tools required.

1



# WAGO PCB Terminal Blocks for Drivers and Electronics

## WAGO PCB Terminal Blocks for Drivers and Electronics

|   |  | Nominal<br>Cross-Section | Series | Page |
|---|--|--------------------------|--------|------|
|    | THR PCB Terminal Blocks with Push-Buttons and Push-in CAGE CLAMP® Connection                             | 0.75 mm <sup>2</sup>     | 2060   | 48   |
|   |  | 1.5 mm <sup>2</sup>      | 2061   | 52   |
|   |  | 0.5 mm <sup>2</sup>      | 250    | 62   |
|   |  | 1.5 mm <sup>2</sup>      | 250    | 64   |
|   |  | 1.5 mm <sup>2</sup>      | 2086   | 66   |
|   |  | 2.5 mm <sup>2</sup>      | 805    | 72   |
|    | PCB Terminal Strips with Push-Buttons and Push-in CAGE CLAMP® Connection                                 | 0.5 mm <sup>2</sup>      | 250    | 54   |
|   |  | 1.5 mm <sup>2</sup>      | 250    | 58   |
|   |  | 2.5 mm <sup>2</sup>      | 805    | 68   |
|   |  | 2.5 mm <sup>2</sup>      | 804    | 74   |
|    | Modular PCB Terminal Blocks and PCB Terminal Strips with Push-Buttons and Push-in CAGE CLAMP® Connection | 1.5 mm <sup>2</sup>      | 235    | 76   |
|    | PCB Terminal Blocks with PUSH WIRE® Connection   | 1.5 mm <sup>2</sup>      | 744    | 82   |
|   | Modular PCB Terminal Blocks and PCB Terminal Strips with PUSH WIRE® Connection                           | 2.5 mm <sup>2</sup>      | 235    | 84   |
|  | Two-Conductor PCB Terminal Strips with PUSH WIRE® Connection   | 1.5 mm <sup>2</sup>      | 253    | 88   |
|  | PCB Terminal Blocks with Levers and Push-in CAGE CLAMP® Connection                                       | 1.5 mm <sup>2</sup>      | 2601   | 90   |
|  | PCB Terminal Blocks with Levers and Push-in CAGE CLAMP® Connection                                       | 4 mm <sup>2</sup>        | 2604   | 92   |
|  | PCB Terminal Blocks with Push-in CAGE CLAMP® Connection  | 6 mm <sup>2</sup>        | 2624   | 96   |



## WAGO Configurator

### Description and Installation

2



The planning process for electrical switchgear units is becoming more and more digitized and automated in order to make the engineering process as efficient as possible. The basis for this digitalization is the digital twin of the switchgear unit. The WAGO Configurator supports you in designing your circuit configuration online as quickly and easily as possible according to your needs. In particular, it offers the following functions:

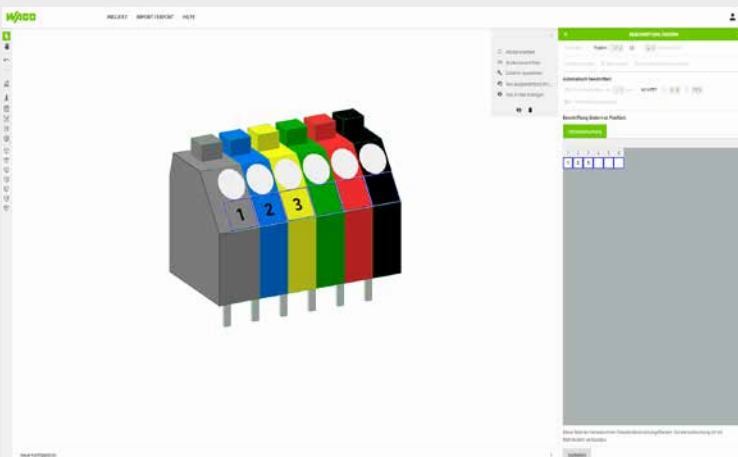
- Data interfaces to CAE tools (e.g., EPLAN, WSCAD, ZUKEN E<sup>3</sup>, Strieplan)
- Configuration wizards
- Data export to WAGO Marking Software Smart Script for printing the marking
- Worker assistance view as an assembly aid
- PDF documentation for customers
- Configuration ordering (through wholesaler or directly from WAGO)



[Go to Smart Designer](#)

# WAGO Configurator Description and Installation

2



**Free or Wizard-Guided Product Configuration**  
The WAGO Configurator offers various configuration methods depending on what you need:

- Import from CAE tools
- Integrated configuration wizards
- Project templates
- Free configuration

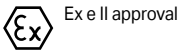
# PCB Terminal Blocks

## Product Overview by Pin Spacing

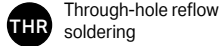
2

Housing colors available upon request:

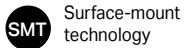
- green-yellow
- gray
- dark gray
- light gray
- white
- orange
- light green
- black
- blue
- red
- yellow
- brown
- green
- violet
- pink



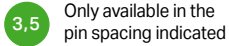
Ex e II approval



Through-hole reflow soldering



Surface-mount technology



Only available in the pin spacing indicated

| 2.5 mm                                       |            | 2.54 mm                                      |            | 3.5 mm   |            | 3.5 mm                                       |            |
|--|------------|--|------------|--|------------|--|------------|
| Item No.                                     | Pack. Unit | Item No.                                     | Pack. Unit | Item No.   | Pack. Unit | Item No.                                     | Pack. Unit |
| 233 Series; 2 ... 24 poles; 160 V / 6 A      |            | 233 Series; 2 ... 24 poles; 160 V / 6 A      |            | 739 Series; 2 ... 12 poles; 160 V / 17.5 A             |            | 2086 Series; 2 ... 12 poles; 160 V / 17.5 A  |            |
|  |            |  |            |  |            |  | <b>THR</b> |
| 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG           |            | 0.14 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG |            |
| ○ 233-102 600                                |            | ○ 233-402 600                                |            | ○ 739-302 560  |            | ● 2086-1102 432                              |            |
| ○ 233-124 80                                 |            | ○ 233-424 80                                 |            | ○ 739-312 100  |            | ● 2086-1112 72                               |            |
| 233 Series; 2 ... 24 poles; 160 V / 6 A      |            | 233 Series; 2 ... 24 poles; 160 V / 6 A      |            | 805 Series; 2 ... 24 poles; 320 V / 17.5 A             |            | 2601 Series; 1 ... 12 poles; 160 V / 17.5 A  |            |
|  |            |  |            |  |            |  |            |
| 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG            |            | 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 16 AWG |            |
| ○ 233-202 600                                |            | ○ 233-502 600                                |            | ○ 805-102 580  |            | ○ 2601-1102 120                              |            |
| ○ 233-224 80                                 |            | ○ 233-524 80                                 |            | ○ 805-124 40   |            | ○ 2601-1112 10                               |            |
| 234 Series; 2 ... 24 poles; 160 V / 6 A      |            | 234 Series; 2 ... 24 poles; 160 V / 6 A      |            | 805 Series; 2 ... 8 poles; 320 V / 17.5 A              |            |  |            |
|  |            |  |            |  |            | <b>THR</b>                                   |            |
| 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG            |            |  |            |
| ○ 234-202 600                                |            | ○ 234-502 600                                |            | ● 805-302/200-604 600                                  |            |  |            |
| ○ 234-224 80                                 |            | ○ 234-524 80                                 |            | ● 805-308/200-604 160                                  |            |  |            |
| 250 Series; 2 ... 24 poles; 160 V / 4 A      |            | 250 Series; 2 ... 24 poles; 160 V / 4 A      |            | 250 Series; 2 ... 24 poles; 160 V / 8 A                |            |  |            |
|  |            |  |            |  |            |  |            |
| 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG  |            | 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG  |            | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG            |            |  |            |
| ○ 250-402 720                                |            | ○ 250-1402 720                               |            | ○ 250-102 560  |            |  |            |
| ○ 250-424 60                                 |            | ○ 250-1424 60                                |            | ○ 250-124 40   |            |  |            |
| 250 Series; 2 ... 8 poles; 160 V / 4 A       |            |  |            | 250 Series; 2 ... 24 poles; 250 V / 8 A                |            |  |            |
|  |            |  |            |  |            |  |            |
| 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG  |            |  |            | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG            |            |  |            |
| ● 250-402/350-604 720                        |            |  |            | ○ 250-202 560  |            |  |            |
| ● 250-408/350-604 220                        |            |  |            | ○ 250-224 40   |            |  |            |
| 218 Series; 2 ... 24 poles; 160 V / 6 A      |            | 218 Series; 2 ... 24 poles; 160 V / 6 A      |            | 250 Series; 2 ... 8 poles; 320 V / 8 A                 |            |  |            |
|  |            |  |            |  |            | <b>THR</b>                                   |            |
| 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG            |            |  |            |
| ○ 218-102 1000                               |            | ○ 218-502 1000                               |            | ● 250-202/353-604 560                                  |            |  |            |
| ○ 218-124 60                                 |            | ○ 218-524 60                                 |            | ● 250-208/353-604 160                                  |            |  |            |
| 218 Series; 2 ... 7 poles; 160 V / 6 A       |            | 218 Series; 2 ... 7 poles; 160 V / 6 A       |            | 744 Series; 2 ... 10 poles; 320 V / 2 A                |            |  |            |
|  |            |  |            |  |            |  |            |
| 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.08 ... 0.5 mm <sup>2</sup> / 28 ... 20 AWG |            | 0.5 ... 1.5 mm <sup>2</sup> "s" / 20 ... 16 AWG "sol." |            |  |            |
| ● 218-102/000-604 1000                       |            | ● 218-502/000-604 1000                       |            | ○ 744-392 1500   |            |  |            |
| ● 218-107/000-604 240                        |            | ● 218-507/000-604 240                        |            | ○ 744-310 200  |            |  |            |

# PCB Terminal Blocks

## Product Overview by Pin Spacing

| 3.81 mm                                       |            | 5 mm   |            |  |            |  |            |  |  |
|---|------------|--|------------|--|------------|--|------------|--|--|
| Item No.                                      | Pack. Unit | Item No.   | Pack. Unit | Item No.   | Pack. Unit | Item No.   | Pack. Unit |  |  |
| 739 Series; 2 ... 12 poles;<br>320 V / 17.5 A |            | 236 Series; 1 ... 48 poles;<br>320 V / 24 A            |            | 236 Series; 2 ... 6 poles;<br>320 V / 24 A             |            | 742 Series; 1 ... 3 conductors,<br>320 V / 16 A          |            | 235 Series; 2 ... 12 poles;<br>320 V / 17.5 A                |  |
| 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG             |            | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 14 AWG                  |  |
| 739-332 520                                   |            | 236-101 420  |            | 236-402/334-604 420                                    |            | 742-101 384  |            | 235-402/331-000 420  |  |
| 739-342 100                                   |            | 236-148 20   |            | 236-406/334-604 140                                    |            | 742-153 100  |            | 235-412/331-000 60   |  |
| 235 Series; 1 ... 48 poles;<br>320 V / 17.5 A |            | 736 Series; 2 x 2 ... 24 x 2<br>poles;<br>320 V / 21 A |            | 740 Series; 2 ... 24 poles;<br>320 V / 16 A            |            | 742 Series; 1 conductor/2<br>conductors,<br>320 V / 16 A |            | 2604 Series; 2 ... 12 poles;<br>with levers;<br>400 V / 32 A |  |
| 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG             |            | 0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG                    |  |
| 235-101 520                                   |            | 736-102 161  |            | 740-102 460  |            | 742-121 300  |            | 2604-1102 200  |  |
| 235-148 20                                    |            | 736-124 14   |            | 740-124 40   |            | 742-178 200  |            | 2604-1112 30   |  |
| 235 Series; 1 ... 48 poles;<br>320 V / 17.5 A |            | 737 Series; 2 x 3 ... 24 x 3<br>poles;<br>320 V / 21 A |            | 253 Series; 2 ... 16 poles;<br>320 V / 17.5 A          |            | 742 Series; 1 ... 3 conductors,<br>320 V / 15 A          |            | 2624 Series; 2 ... 12 poles;<br>400 V / 41 A                 |  |
| 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.5 ... 1.5 mm <sup>2</sup> "s" / 20 ... 16 AWG "sol." |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG             |            | 0.2 ... 6 mm <sup>2</sup> / 24 ... 10 AWG                    |  |
| 235-101/330-000 520                           |            | 737-102 92   |            | 253-102 400  |            | 742-111 300  |            | 2624-1102 200  |  |
| 235-148/330-000 20                            |            | 737-124 8  |            | 253-116 40   |            | 742-163 100  |            | 2624-1112 35   |  |
|   |            | 738 Series; 2 x 4 ... 24 x 4<br>poles;<br>320 V / 18 A |            | 250 Series; 2 ... 16 poles;<br>320 V / 17.5 A          |            | 741 Series; 2 ... 16 poles;<br>320 V / 16 A              |            | 231 Series; 2 ... 12 poles;<br>320 V / 16 A                  |  |
|   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG            |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG             |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                 |  |
|   |            | 738-102 72   |            | 250-502 400  |            | 741-102 400  |            | 231-602/017-000 100  |  |
|   |            | 738-124 6  |            | 250-516 40   |            | 741-116 40   |            | 231-612/017-000 25   |  |
|   |            | 255 Series; 1 ... 48 poles;<br>320 V / 24 A            |            | 250 Series; 2 ... 24 poles;<br>320 V / 10 A            |            |  |            | 731 Series; 2 ... 12 poles;<br>320 V / 5 A                   |  |
|   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG            |            |  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                 |  |
|   |            | 255-401 400  |            | 250-702 264  |            |  |            | 731-132 50   |  |
|   |            | 255-448 20   |            | 250-724 24   |            |  |            | 731-142/048-000 25   |  |
|   |            | 256 Series; 1 ... 48 poles;<br>320 V / 24 A            |            | 816 Series; 2 ... 12 poles;<br>320 V / 14 A            |            | 235 Series; 2 ... 48 poles;<br>320 V / 24 A              |            | 2086 Series; 2 ... 8 poles;<br>320 V / 17.5 A                |  |
|   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 2 x 0.2 ... 1.5 mm <sup>2</sup> / 2 x 24 ... 16 AWG    |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 14 AWG "sol."   |            | 0.14 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG                 |  |
|   |            | 256-401 400  |            | 816-102 400  |            | 235-402 421  |            | 2086-3102 360  |  |
|   |            | 256-448 20   |            | 816-112 60   |            | 235-448 20   |            | 2086-3108 84   |  |
|   |            | 257 Series; 1 ... 48 poles;<br>320 V / 24 A            |            | 254 Series; 1 ... 48 poles;<br>320 V / 24 A            |            | 745 Series; 2 ... 12 poles;<br>320 V / 32 A              |            |  |  |
|   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 12 AWG "sol." |            | 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG               |            |  |  |
|   |            | 257-401 400  |            | 254-451 420  |            | 745-3102 276   |            |  |  |
|   |            | 257-448 20   |            | 254-498 20   |            | 745-3112 48  |            |  |  |
|   |            | 739 Series; 2 ... 24 poles;<br>320 V / 24 A            |            | 804 Series; 2 ... 16 poles;<br>320 V / 24 A            |            | 745 Series; 2 ... 12 poles;<br>320 V / 32 A              |            |  |  |
|   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.25 ... 2.5 mm <sup>2</sup> / 20 ... 12 AWG           |            | 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG               |            |  |  |
|   |            | 739-102 400  |            | 804-102 420  |            | 745-102 230  |            |  |  |
|   |            | 739-124 20   |            | 804-116 60   |            | 745-112 40   |            |  |  |



# PCB Terminal Blocks

## Product Overview by Pin Spacing

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| 5.08 mm   |            |  |            | 7.5 mm  |            |  |            |
|---|------------|--|------------|---|------------|--|------------|
| Item No.  | Pack. Unit | Item No.   | Pack. Unit | Item No.  | Pack. Unit | Item No.   | Pack. Unit |
| 236 Series; 1 ... 48 poles;<br>320 V / 24 A         |            | 742 Series; 1 ... 3 conductors,<br>320 V / 16 A        |            | 236 Series; 1 ... 24 poles;<br>630 V / 24 A         |            | 235 Series; 1 ... 24 poles;<br>630 V / 17.5 A                |            |
|   |            |  |            |   |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 14 AWG                  |            |
| 236-101 420   |            | 742-106 384  |            | 236-201 280   |            | 235-501/331-000 280  |            |
| 236-148 20  |            | 742-158 100  |            | 236-224 20  |            | 235-524/331-000 20   |            |
| 736 Series; 2 x 2 ... 24 x 2 poles;<br>320 V / 21 A |            | 742 Series; 1 conductor/2 conductors,<br>320 V / 16 A  |            | 736 Series; 2 x 2 ... 16 x 2 poles;<br>630 V / 21 A |            | 235 Series; 1 ... 24 poles;<br>630 V / 24 A                  |            |
|   |            |  |            |   |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 14 AWG "sol."       |            |
| 736-302 161   |            | 742-126 300  |            | 736-502 133   |            | 235-501 280  |            |
| 736-324 14  |            | 742-176 200  |            | 736-516 14  |            | 235-524 20   |            |
| 737 Series; 2 x 3 ... 24 x 3 poles;<br>320 V / 21 A |            | 742 Series; 1 ... 3 conductors,<br>320 V / 15 A        |            | 737 Series; 2 x 3 ... 16 x 3 poles;<br>630 V / 21 A |            | 254 Series; 1 ... 24 poles;<br>630 V / 24 A                  |            |
|   |            |  |            |   |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 12 AWG "sol."       |            |
| 737-302 92  |            | 742-116 300  |            | 737-502 76  |            | 254-551 280  |            |
| 737-324 8   |            | 742-168 100  |            | 737-516 8   |            | 254-574 20   |            |
| 738 Series; 2 x 4 ... 24 x 4 poles;<br>320 V / 18 A |            | 741 Series; 2 ... 16 poles;<br>320 V / 16 A            |            | 255 Series; 1 ... 24 poles;<br>630 V / 24 A         |            | 741 Series; 2 ... 10 poles;<br>630 V / 16 A                  |            |
|   |            |  |            |   |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                 |            |
| 738-302 72  |            | 741-202 400  |            | 255-501 280   |            | 741-302 340  |            |
| 738-324 6   |            | 741-216 40   |            | 255-524 20  |            | 741-310 60   |            |
| 255 Series; 1 ... 48 poles;<br>320 V / 24 A         |            |  |            | 256 Series; 1 ... 24 poles;<br>320 V / 24 A         |            | 250 Series; 2 ... 12 poles;<br>630 V / 17.5 A                |            |
|   |            |  |            |   |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            |  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG                  |            |
| 255-401 400   |            |  |            | 256-501 280   |            | 250-602 340  |            |
| 255-448 20  |            |  |            | 256-524 20  |            | 250-612 40   |            |
| 256 Series; 1 ... 48 poles;<br>320 V / 24 A         |            | 235 Series; 1 ... 48 poles;<br>320 V / 24 A            |            | 257 Series; 1 ... 24 poles;<br>630 V / 24 A         |            | 804 Series; 2 ... 12 poles;<br>320 V / 24 A                  |            |
|   |            |  |            |   |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 14 AWG "sol." |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.25 ... 2.5 mm <sup>2</sup> / 20 ... 12 AWG                 |            |
| 256-401 400   |            | 235-401 420  |            | 257-501 280   |            | 804-302 340  |            |
| 256-448 20  |            | 235-448 20   |            | 257-524 20  |            | 804-312 40   |            |
| 257 Series; 1 ... 48 poles;<br>320 V / 24 A         |            | 254 Series; 1 ... 48 poles;<br>320 V / 24 A            |            | 739 Series; 2 ... 12 poles;<br>630 V / 24 A         |            | 2604 Series; 2 ... 12 poles;<br>with lever;<br>630 V / 32 A  |            |
|   |            |  |            |   |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 12 AWG "sol." |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG                    |            |
| 257-401 400   |            | 254-451 420  |            | 739-202 340   |            | 2604-1302 200  |            |
| 257-448 20  |            | 254-498 20   |            | 739-212 40  |            | 2604-1312 30   |            |
| 739 Series; 2 ... 24 poles;<br>320 V / 24 A         |            |  |            |   |            | 2606 Series; 2 ... 12 poles;<br>with lever;<br>1000 V / 41 A |            |
|   |            |  |            |   |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            |  |            |   |            | 0.2 ... 6 mm <sup>2</sup> / 24 ... 10 AWG                    |            |
| 739-152 400   |            |  |            |   |            | 2624-1302 200  |            |
| 739-174 20  |            |  |            |   |            | 2624-1312 25   |            |
|   |            |  |            |   |            | 2626 Series; 2 ... 12 poles;<br>1000 V / 41 A                |            |
|   |            |  |            |   |            |  |            |
|   |            |  |            |   |            | 0.2 ... 10 mm <sup>2</sup> / 24 ... 8 AWG                    |            |
|   |            |  |            |   |            | 2606-1102/020-000 120  |            |
|   |            |  |            |   |            | 2606-1112/020-000 25   |            |
|   |            |  |            |   |            | 2626-1102/020-000 140  |            |
|   |            |  |            |   |            | 2626-1112/020-000 25   |            |



# PCB Terminal Blocks

## Product Overview by Pin Spacing

| 7.62 mm   |            |  |            | 10 mm  |            |  |            |
|---|------------|--|------------|--|------------|--|------------|
| Item No.  | Pack. Unit | Item No.   | Pack. Unit | Item No.   | Pack. Unit | Item No.   | Pack. Unit |
| 236 Series; 1 ... 24 poles;<br>630 V / 24 A         |            | 235 Series; 1 ... 24 poles;<br>630 V / 17.5 A          |            | 236 Series; 1 ... 24 poles;<br>1000 V / 10 A         | Ex         | 235 Series; 1 ... 24 poles;<br>1000 V / 17.5 A               |            |
|   |            |  |            |  |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 14 AWG            |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG         |            | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 14 AWG                  |            |
| 236-201 280   |            | 235-501/331-000 280                                    |            | 236-301 200  |            | 235-801/331-000 220  |            |
| 236-224 20  |            | 235-524/331-000 20                                     |            | 236-324 20   |            | 235-824/331-000 20   |            |
| 736 Series; 2 x 2 ... 16 x 2 poles;<br>630 V / 21 A |            | 235 Series; 1 ... 24 poles;<br>630 V / 24 A            |            | 736 Series; 2 x 2 ... 12 x 2 poles;<br>1000 V / 21 A |            | 235 Series; 1 ... 24 poles;<br>1000 V / 24 A                 |            |
|   |            |  |            |  |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 14 AWG "sol." |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG         |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 14 AWG "sol."       |            |
| 736-602 133   |            | 235-501 280  |            | 736-702 112  |            | 235-801 220  |            |
| 736-616 14  |            | 235-524 20   |            | 736-712 14   |            | 235-824 20   |            |
| 737 Series; 2 x 3 ... 16 x 3 poles;<br>630 V / 21 A |            | 254 Series; 1 ... 24 poles;<br>630 V / 24 A            |            | 737 Series; 2 x 3 ... 12 x 3 poles;<br>1000 V / 21 A |            | 254 Series; 1 ... 24 poles;<br>1000 V / 24 A                 |            |
|   |            |  |            |  |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 12 AWG "sol." |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG         |            | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 12 AWG "sol."       |            |
| 737-602 76  |            | 254-551 280  |            | 737-702 64   |            | 254-651 280  |            |
| 737-616 8   |            | 254-574 20   |            | 737-712 8  |            | 254-674 20   |            |
| 255 Series; 1 ... 24 poles;<br>630 V / 24 A         | Ex         | 741 Series; 2 ... 10 poles;<br>630 V / 16 A            |            | 255 Series; 1 ... 24 poles;<br>1000 V / 24 A         | Ex         | 741 Series; 2 ... 8 poles;<br>1000 V / 16 A                  |            |
|   |            |  |            |  |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG         |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                 |            |
| 255-501 280   |            | 741-402 320  |            | 255-601 200  |            | 741-502 280  |            |
| 255-524 20  |            | 741-410 60   |            | 255-624 20   |            | 741-508 60   |            |
| 256 Series; 1 ... 24 poles;<br>320 V / 24 A         | Ex         |  |            | 256 Series; 1 ... 24 poles;<br>630 V / 24 A          | Ex         | 2616 Series; 2 ... 12 poles;<br>with lever;<br>1000 V / 76 A |            |
|   |            |  |            |  |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            |  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG         |            | 0.75 ... 16 mm <sup>2</sup> / 18 ... 4 AWG                   |            |
| 256-501 280   |            |  |            | 256-601 200  |            | 2616-1102/020-000 50   |            |
| 256-524 20  |            |  |            | 256-624 20   |            | 2616-1112/020-000 10   |            |
| 257 Series; 1 ... 24 poles;<br>630 V / 24 A         | Ex         |  |            | 257 Series; 1 ... 24 poles;<br>1000 V / 24 A         | Ex         | 2636 Series; 2 ... 12 poles;<br>1000 V / 76 A                |            |
|   |            |  |            |  |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            |  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG         |            | 0.75 ... 16 mm <sup>2</sup> / 18 ... 4 AWG                   |            |
| 257-501 280   |            |  |            | 257-601 200  |            | 2636-1102/020-000 50   |            |
| 257-524 20  |            |  |            | 257-624 20   |            | 2636-1112/020-000 15   |            |
| 739 Series; 2 ... 12 poles;<br>630 V / 24 A         |            |  |            | 739 Series; 2 ... 12 poles;<br>630 V / 24 A          |            | 2716 Series; 2 ... 12 poles;<br>1000 V / 41 A                |            |
|   |            |  |            |  |            |  |            |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG        |            |  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG         |            | 0.5 ... 6 mm <sup>2</sup> / 20 ... 10 AWG                    |            |
| 739-232 340   |            |  |            | 739-3202 280   |            | 2706-202 70  |            |
| 739-242 40  |            |  |            | 739-3212 40  |            | 2706-212 10  |            |
|   |            |  |            | 745 Series; 2 ... 12 poles;<br>1000 V / 32 A         | Ex         | 2706 Series; 2 ... 12 poles;<br>1000 V / 41 A                |            |
|   |            |  |            |  |            |  |            |
|   |            |  |            | 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG           |            | 0.5 ... 6 mm <sup>2</sup> / 20 ... 10 AWG                    |            |
|   |            |  |            | 745-3202 192   |            | 2706-252 70  |            |
|   |            |  |            | 745-3212 24  |            | 2706-262 10  |            |
|   |            |  |            |  |            | 2716 Series; 2 ... 8 poles;<br>320 V / 75 A                  |            |
|   |            |  |            |  |            |  |            |
|   |            |  |            |  |            | 1.5 ... 16 mm <sup>2</sup> / 16 ... 6 AWG                    |            |
|   |            |  |            |  |            | 2716-102 65  |            |
|   |            |  |            |  |            | 2716-108 15  |            |
|   |            |  |            |  |            | 2716 Series; 2 ... 8 poles;<br>1000 V / 76 A                 |            |
|   |            |  |            |  |            |  |            |
|   |            |  |            |  |            | 1.5 ... 16 mm <sup>2</sup> / 16 ... 6 AWG                    |            |
|   |            |  |            |  |            | 2716-152 52  |            |
|   |            |  |            |  |            | 2716-158 12  |            |

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# PCB Terminal Blocks















## Product Overview by Pin Spacing

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| 10.16 mm  |            | 11.5 mm  |            | 12.5 mm  |            | 15 mm                                      |            |  |    |
|---|------------|--|------------|--|------------|--|------------|--|----|
| Item No.  | Pack. Unit | Item No.   | Pack. Unit | Item No.   | Pack. Unit | Item No.                                   | Pack. Unit |  |    |
| 236 Series; 1 ... 24 poles; 1000 V / 10 A         |            | 235 Series; 1 ... 24 poles; 1000 V / 17.5 A            |            | 2604 Series; 2 ... 12 poles; with lever; 1000 V / 32 A |            | 2606 Series; 2 ... 12 poles; 1000 V / 41 A |            | 2616 Series; 2 ... 8 poles; 1000 V / 76 A  |    |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG      | 200        | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 14 AWG            | 220        | 0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG              | 130        | 0.2 ... 10 mm <sup>2</sup> / 24 ... 8 AWG  | 80         | 0.75 ... 16 mm <sup>2</sup> / 18 ... 4 AWG | 44 |
| 236-301   | 200        | 235-801/331-000  | 220        | 2604-1502  | 130        | 2606-1352                                  | 80         | 2616-1352                                  | 44 |
| 236-324   | 20         | 235-824/331-000  | 20         | 2604-1512  | 15         | 2606-1362                                  | 12         | 2616-1358                                  | 14 |
| 736 Series; 2 x 2 ... 12 x 2 poles; 1000 V / 21 A |            | 235 Series; 1 ... 24 poles; 1000 V / 24 A              |            | 2624 Series; 2 ... 12 poles; 1000 V / 41 A             |            | 2606 Series; 2 ... 12 poles; 1000 V / 41 A |            | 2616 Series; 2 ... 8 poles; 1000 V / 76 A  |    |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG      | 112        | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 14 AWG "sol." | 220        | 0.2 ... 6 mm <sup>2</sup> / 24 ... 10 AWG              | 100        | 0.2 ... 10 mm <sup>2</sup> / 24 ... 8 AWG  | 80         | 0.75 ... 16 mm <sup>2</sup> / 18 ... 4 AWG | 44 |
| 736-802   | 112        | 235-801  | 220        | 2624-1502  | 100        | 2606-3352                                  | 80         | 2616-3352                                  | 44 |
| 736-812   | 14         | 235-824  | 20         | 2624-1512  | 20         | 2606-3362                                  | 12         | 2616-3358                                  | 14 |
| 737 Series; 2 x 3 ... 12 x 3 poles; 1000 V / 21 A |            | 254 Series; 1 ... 24 poles; 1000 V / 24 A              |            |  |            | 2626 Series; 2 ... 12 poles; 1000 V / 48 A |            | 2636 Series; 2 ... 8 poles; 1000 V / 76 A  |    |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG      | 64         | 0.5 ... 2.5 mm <sup>2</sup> "s" / 20 ... 12 AWG "sol." | 280        |  |            | 0.2 ... 10 mm <sup>2</sup> / 24 ... 8 AWG  | 100        | 0.75 ... 16 mm <sup>2</sup> / 18 ... 4 AWG | 60 |
| 737-802   | 64         | 254-651  | 280        |  |            | 2626-1352                                  | 100        | 2636-1352                                  | 60 |
| 737-812   | 8          | 254-674  | 20         |  |            | 2636-1362                                  | 12         | 2636-1358                                  | 18 |
| 255 Series; 1 ... 24 poles; 1000 V / 24 A         |            | 741 Series; 2 ... 8 poles; 1000 V / 16 A               |            |  |            | 2626 Series; 2 ... 12 poles; 1000 V / 48 A |            | 2636 Series; 2 ... 8 poles; 1000 V / 76 A  |    |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG      | 200        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG           | 280        |  |            | 0.2 ... 10 mm <sup>2</sup> / 24 ... 8 AWG  | 100        | 0.75 ... 16 mm <sup>2</sup> / 18 ... 4 AWG | 50 |
| 255-601   | 200        | 741-602  | 280        |  |            | 2636-3352                                  | 100        | 2636-3352                                  | 50 |
| 255-624   | 20         | 741-608  | 60         |  |            | 2636-3362                                  | 12         | 2636-3358                                  | 16 |
| 256 Series; 1 ... 24 poles; 630 V / 24 A          |            |  |            |  |            | 745 Series; 2 ... 12 poles; 1000 V / 32 A  |            | 745 Series; 2 ... 12 poles; 1000 V / 41 A  |    |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG      | 200        |  |            |  |            | 0.2 ... 10 mm <sup>2</sup> / 24 ... 8 AWG  | 100        | 0.75 ... 16 mm <sup>2</sup> / 18 ... 4 AWG | 50 |
| 256-601   | 200        |  |            |  |            | 745-3252                                   | 168        | 745-1452                                   | 64 |
| 256-624   | 20         |  |            |  |            | 745-3262                                   | 12         | 745-1462                                   | 8  |
| 257 Series; 1 ... 24 poles; 1000 V / 24 A         |            |  |            |  |            | 745 Series; 2 ... 12 poles; 1000 V / 41 A  |            | 745 Series; 2 ... 5 poles; 1000 V / 76 A   |    |
| 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG      | 200        |  |            |  |            | 0.08 ... 4 mm <sup>2</sup> / 28 ... 12 AWG | 168        | 0.2 ... 6 mm <sup>2</sup> / 24 ... 10 AWG  | 64 |
| 257-601   | 200        |  |            |  |            | 745-3252                                   | 168        | 745-1452                                   | 64 |
| 257-624   | 20         |  |            |  |            | 745-3262                                   | 12         | 745-1462                                   | 8  |
|   |            |  |            |  |            | 745 Series; 2 ... 12 poles; 1000 V / 41 A  |            | 745 Series; 2 ... 5 poles; 1000 V / 76 A   |    |
|   |            |  |            |  |            | 0.2 ... 6 mm <sup>2</sup> / 24 ... 10 AWG  | 80         | 0.2 ... 16 mm <sup>2</sup> / 24 ... 6 AWG  | 36 |
|   |            |  |            |  |            | 745-1402                                   | 80         | 745-602/006-000                            | 36 |
|   |            |  |            |  |            | 745-1412                                   | 8          | 745-605/006-000                            | 12 |
|   |            |  |            |  |            | 2706 Series; 2 ... 12 poles; 1000 V / 41 A |            | 2716 Series; 2 ... 8 poles; 1000 V / 76 A  |    |
|   |            |  |            |  |            | 0.5 ... 6 mm <sup>2</sup> / 20 ... 10 AWG  | 65         | 1.5 ... 16 mm <sup>2</sup> / 16 ... 6 AWG  | 50 |
|   |            |  |            |  |            | 2706-302                                   | 65         | 2716-202                                   | 50 |
|   |            |  |            |  |            | 2706-312                                   | 5          | 2716-208                                   | 10 |
|   |            |  |            |  |            |  |            | 2716 Series; 2 ... 8 poles; 1000 V / 76 A  |    |
|   |            |  |            |  |            |  |            | 1.5 ... 16 mm <sup>2</sup> / 16 ... 6 AWG  | 40 |
|   |            |  |            |  |            |  |            | 2716-252                                   | 40 |
|   |            |  |            |  |            |  |            | 2716-258                                   | 8  |

# PCB Terminal Blocks; Pluggable PCB Terminal Blocks ▶ Jumpers

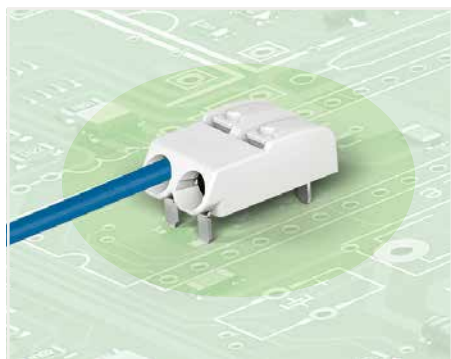
## Product Overview by Pin Spacing

| 20 mm   |            | Pluggable PCB Terminal Block  |            | Jumper   |            |
|---|------------|---|------------|--|------------|
| Item No.  | Pack. Unit | Item No.  | Pack. Unit | Item No.   | Pack. Unit |
| 745 Series; 2 ... 5 poles; 1000 V / 76 A<br> |            | 252 Series; 2 ... 10 poles; 320 V / 2 A<br>    |            | Comb-style jumper bar; 5 mm pin spacing; for 745 Series – 4 mm <sup>2</sup><br>                     |            |
| 0.2 ... 16 mm <sup>2</sup> / 24 ... 6 AWG   |            | Ø0.4 ... 0.8 mm "s" / 26 ... 20 AWG "sol"   |            | 745-181  | 50         |
| ○ 745-652/006-000   | 32         | ○ 252-102   | 600        | 745-185  | 50         |
| ○ 745-655/006-000   | 8          | ○ 252-110   | 150        | Comb-style jumper bar; 7.5 mm pin spacing; for 745 Series – 4 mm <sup>2</sup><br>                   |            |
|   |            | 252 Series; 2 ... 10 poles; 320 V / 2 A<br>    |            | 745-191  | 50         |
|   |            | Ø0.4 ... 0.8 mm "s" / 26 ... 20 AWG "sol"   |            | 745-195  | 50         |
|   |            | ○ 252-152   | 600        | Comb-style jumper bar; 10 mm pin spacing; for 745 Series – 4 mm <sup>2</sup><br>                    |            |
|   |            | ○ 252-160   | 150        | 745-281  | 50         |
|   |            | 252 Series; 2 ... 10 poles; 320 V / 2 A<br>    |            | 745-285  | 50         |
|   |            | Ø0.4 ... 0.8 mm "s" / 26 ... 20 AWG "sol"   |            | Comb-style jumper bar; 7.5 mm pin spacing; for 745 Series and 2706 Series – 6 mm <sup>2</sup><br> |            |
|   |            | ○ 252-302   | 600        | 745-381  | 50         |
|   |            | ○ 252-310   | 150        | 745-385  | 50         |
|   |            | 243 Series; 2 ... 8 poles; 320 V / 6 A<br>   |            | Comb-style jumper bar; 10 mm pin spacing; for 745 Series and 2706 Series – 6 mm <sup>2</sup><br>  |            |
|   |            | Ø0.4 ... 1.0 mm / 24 ... 18 AWG   |            | 745-391  | 50         |
|   |            | ● 243-742   | 50         | 745-395  | 50         |
|   |            | ● 243-748   | 50         | Comb-style jumper bar; 10 mm pin spacing; for 745 Series and 2716 Series – 16 mm <sup>2</sup><br> |            |
|   |            | 806 Series; 2 ... 12 poles; 320 V / 10 A<br> |            | 745-582  | 50         |
|   |            | 2 x 0.2 ... 1.5 mm <sup>2</sup> / 2 x 24 ... 16 AWG   |            | 745-585  | 50         |
|   |            | ○ 806-102   | 400        | Comb-style jumper bar; 15 mm pin spacing; for 745 Series and 2716 Series – 16 mm <sup>2</sup><br> |            |
|   |            | ○ 806-112   | 60         | 745-631  | 50         |
|   |            |   |            | 745-635  | 50         |
|   |            |   |            | Comb-style jumper bar; 20 mm pin spacing; for 745 Series and 2716 Series – 16 mm <sup>2</sup><br> |            |
|   |            |   |            | 745-681  | 50         |
|   |            |   |            | 745-685  | 50         |

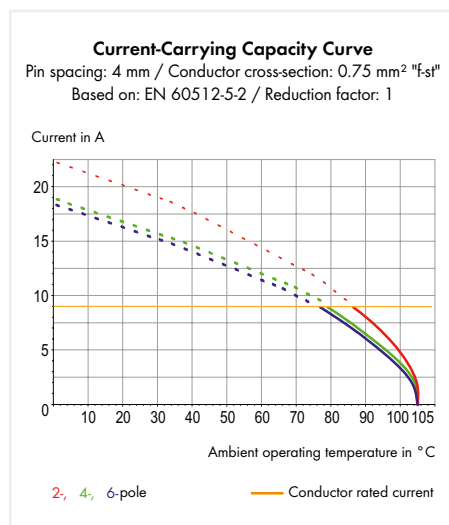
2

**THR PCB Terminal Block ▶ 2060 Series**

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup> ▶ Pin spacing:  
4 mm / 0.157 inch ▶ Solder pin length: 2.4 mm



- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering



| Electrical Data      | 1-pole            |        |        | 2-/3-pole         |        |        |
|----------------------|-------------------|--------|--------|-------------------|--------|--------|
| Pin spacing          | 4 mm / 0.157 inch |        |        | 4 mm / 0.157 inch |        |        |
| Ratings per          | IEC/EN 60664-1    |        |        | IEC/EN 60664-1    |        |        |
| Overtoltage category | III               | III    | II     | III               | III    | II     |
| Pollution degree     | 3                 | 2      | 2      | 3                 | 2      | 2      |
| Rated voltage        | 63 V              | 160 V  | 320 V  | 63 V              | 160 V  | 320 V  |
| Rated surge voltage  | 2.5 kV            | 2.5 kV | 2.5 kV | 2.5 kV            | 2.5 kV | 2.5 kV |
| Rated current        | 9 A               | 9 A    | 9 A    | 9 A               | 9 A    | 9 A    |
| Approvals per        | UL 1977           |        |        | UL 1977           |        |        |
| Rated voltage        | 600 V             |        |        | 320 V             |        |        |
| Rated current        | 9 A               |        |        | 9 A               |        |        |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 6 ... 7 mm / 0.24 ... 0.28 inch              |
| Conductor entry angle to the PCB                  | 0°   |
| Conductor cross-sections                          |  |
| Solid conductor                                   | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor                           | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.34 mm <sup>2</sup>                |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 0.34 mm <sup>2</sup>                |

| Solder Pin Data              |                        |
|------------------------------|------------------------|
| Solder pin length            | 2.4 mm                 |
| Solder pin dimensions        | 1.2 x 0.75 mm          |
| Plated through-hole diameter | 1.5 <sup>+0.1</sup> mm |

| Material Data               |                          |
|-----------------------------|--------------------------|
| Material group              | I                        |
| Insulation material         | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0                       |
| Limit temperature range     | -60 ... +105 °C          |
| Contact material            | Copper alloy             |
| Contact plating             | Tin-plated               |

**Application notes:**

Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

**Recommendation for SMD stencil:**

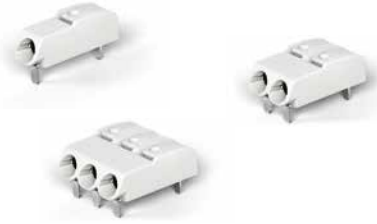
Material thickness: 150 µm; layout identical to metal-plated PCB hole outer diameter

### THR PCB Terminal Block ▶ 2060 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup> ▶ Pin spacing: 4 mm / 0.157 inch ▶ Solder pin length: 2.4 mm

2 solder pins/pole; white\*; Reel diameter: 330 mm

2 solder pins/pole; black; Reel diameter: 330 mm



Insert solid conductors via push-in termination.

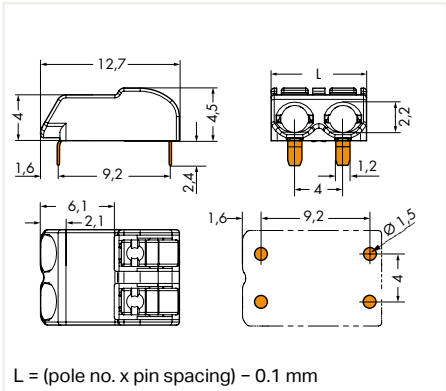
2

| Pole No. | Item No.          | PU           |
|----------|-------------------|--------------|
| 1        | 2060-1451/998-404 | 10800 (1200) |
| 2        | 2060-1452/998-404 | 6750 (750)   |
| 3        | 2060-1453/998-404 | 4950 (550)   |

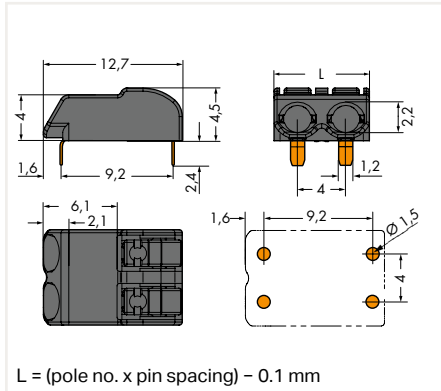
| Pole No. | Item No.          | PU           |
|----------|-------------------|--------------|
| 1        | 2060-1471/998-404 | 10800 (1200) |
| 2        | 2060-1472/998-404 | 6750 (750)   |
| 3        | 2060-1473/998-404 | 4950 (550)   |

\*Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Dimensions in mm

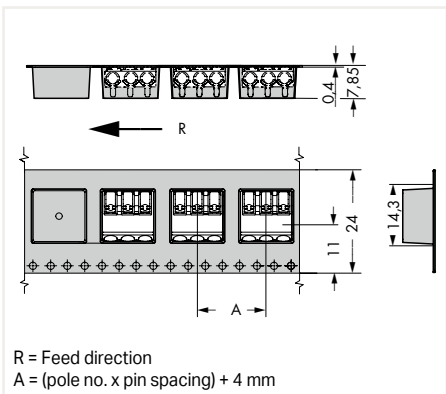


Dimensions in mm

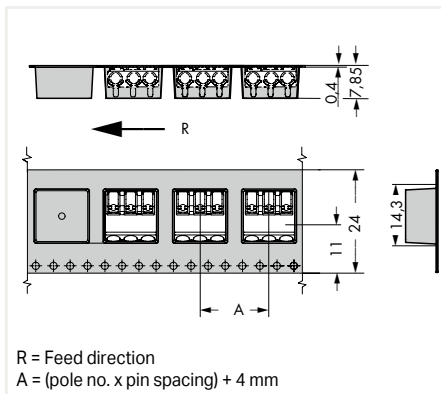


Insert/remove fine-stranded conductors by lightly pressing on a push-button, e.g., via operating tool (Item No. 206-860).

Dimensions in mm



Dimensions in mm

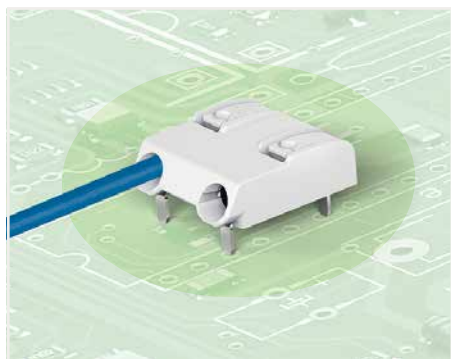


Available in tape-and-reel packaging for automated assembly

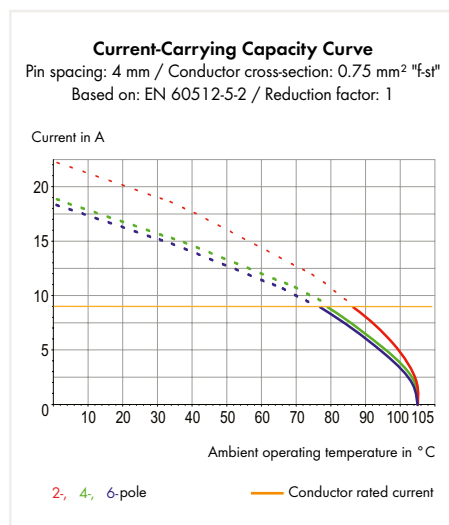


**THR PCB Terminal Block ▶ 2060 Series**

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup> ▶ Pin spacing:  
8 mm / 0.314 inch ▶ Solder pin length: 2.4 mm



- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering



| Electrical Data      |                   |       |        |
|----------------------|-------------------|-------|--------|
| Pin spacing          | 8 mm / 0.314 inch |       |        |
| Ratings per          | IEC/EN 60664-1    |       |        |
| Overtoltage category | III               | III   | II     |
| Pollution degree     | 3                 | 2     | 2      |
| Rated voltage        | 400 V             | 630 V | 1000 V |
| Rated surge voltage  | 6 kV              | 6 kV  | 6 kV   |
| Rated current        | 9 A               | 9 A   | 9 A    |
| Approvals per        | UL 1977           |       |        |
| Rated voltage        | 600 V             |       |        |
| Rated current        | 9 A               |       |        |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 6 ... 7 mm / 0.24 ... 0.28 inch              |
| Conductor entry angle to the PCB                  | 0°   |
| Conductor cross-sections                          |  |
| Solid conductor                                   | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor                           | 0.2 ... 0.75 mm <sup>2</sup> / 24 ... 18 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.34 mm <sup>2</sup>                |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 0.34 mm <sup>2</sup>                |

| Solder Pin Data              |                        |
|------------------------------|------------------------|
| Solder pin length            | 2.4 mm                 |
| Solder pin dimensions        | 1.2 x 0.75 mm          |
| Plated through-hole diameter | 1.5 <sup>+0.1</sup> mm |

| Material Data               |                          |
|-----------------------------|--------------------------|
| Material group              | I                        |
| Insulation material         | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0                       |
| Limit temperature range     | -60 ... +105 °C          |
| Contact material            | Copper alloy             |
| Contact plating             | Tin-plated               |

**Application notes:**

Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

**Recommendation for SMD stencil:**

Material thickness: 150 µm; layout identical to metal-plated PCB hole outer diameter



### THR PCB Terminal Block ▶ 2060 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 0.75 mm<sup>2</sup> ▶ Pin spacing: 8 mm / 0.314 inch ▶ Solder pin length: 2.4 mm

2 solder pins/pole; white\*; Reel diameter: 330 mm

2 solder pins/pole; black; Reel diameter: 330 mm



Inserting solid conductors via push-in termination (picture shows 2060 Series).

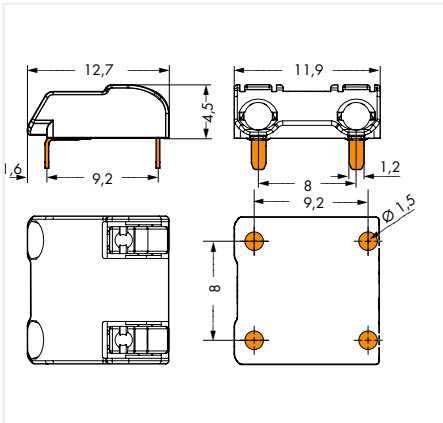
2

| Pole No. | Item No.          | PU         |
|----------|-------------------|------------|
| 2        | 2060-1852/998-404 | 4950 (550) |

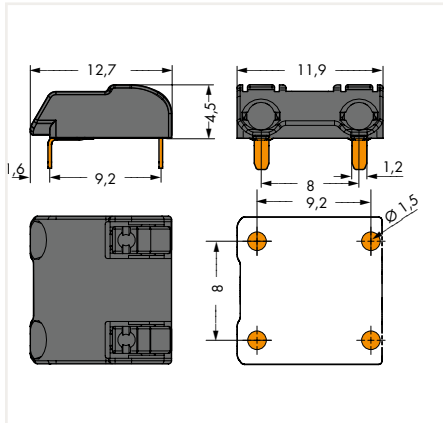
| Pole No. | Item No.          | PU         |
|----------|-------------------|------------|
| 2        | 2060-1872/998-404 | 4950 (550) |

\*Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

Dimensions in mm

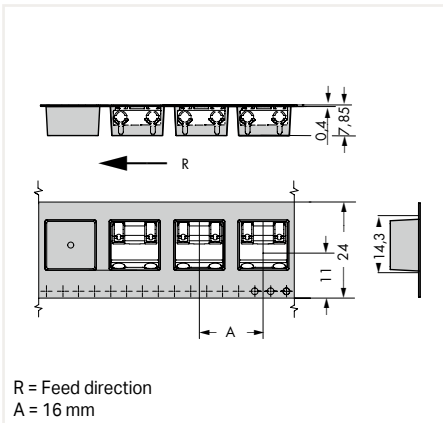


Dimensions in mm



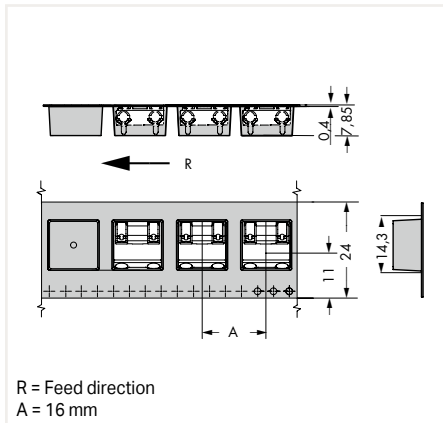
Insert/remove fine-stranded conductors by lightly pressing on a push-button, e.g., via operating tool (Item No. 206-860).

Dimensions in mm



R = Feed direction  
A = 16 mm

Dimensions in mm



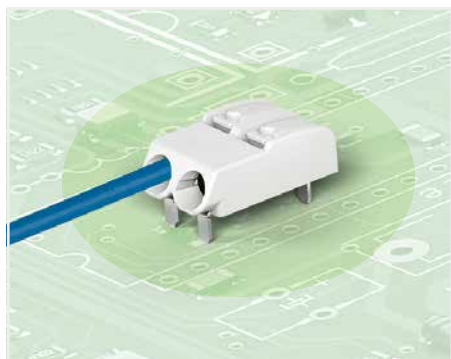
R = Feed direction  
A = 16 mm



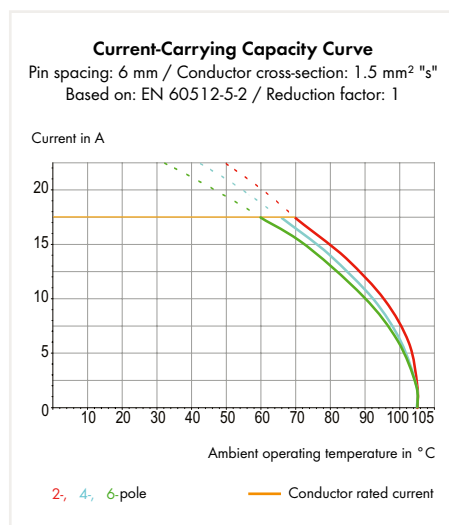
Available in tape-and-reel packaging for automated assembly

**THR PCB Terminal Block ▶ 2061 Series**Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 6 mm / 0.24 inch ▶

Solder pin length: 2.4 mm



- THR PCB terminal blocks with Push-in CAGE CLAMP® connection technology and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 5.6 mm tall
- Available in tape-and-reel packaging for automated assembly
- Also suitable for wave soldering
- Side-by-side assembly without pole loss



| Electrical Data      | 1-pole            |        |        | 2-/3-pole         |        |        |
|----------------------|-------------------|--------|--------|-------------------|--------|--------|
| Pin spacing          | 6 mm / 0.157 inch |        |        | 6 mm / 0.157 inch |        |        |
| Ratings per          | IEC/EN 60664-1    |        |        | IEC/EN 60664-1    |        |        |
| Overtoltage category | III               | III    | II     | III               | III    | II     |
| Pollution degree     | 3                 | 2      | 2      | 3                 | 2      | 2      |
| Rated voltage        | 250 V             | 320 V  | 630 V  | 250 V             | 320 V  | 630 V  |
| Rated surge voltage  | 4 kV              | 4 kV   | 4 kV   | 4 kV              | 4 kV   | 4 kV   |
| Rated current        | 17.5 A            | 17.5 A | 17.5 A | 17.5 A            | 17.5 A | 17.5 A |
| Approvals per        | UL 1059           |        |        | UL 1059           |        |        |
| Use group            | B                 | C      | D      | B                 | C      | D      |
| Rated voltage        | 600 V             | 600 V  | 600 V  | 300 V             | -      | 300 V  |
| Rated current        | 10 A              | 10 A   | 10 A   | 10 A              | -      | 10 A   |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Strip length                                      | 7 ... 10 mm / 0.28 ... 0.39 inch            |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Fine-stranded conductor                           | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.5 ... 0.75 mm <sup>2</sup>                |
| Fine-stranded conductor; with uninsulated ferrule | 0.5 ... 0.75 mm <sup>2</sup>                |

| Solder Pin Data              |                        |
|------------------------------|------------------------|
| Solder pin length            | 2.4 mm                 |
| Solder pin dimensions        | 1.2 x 0.75 mm          |
| Plated through-hole diameter | 1.5 <sup>+0.1</sup> mm |

| Solder Pin Data              |                        |
|------------------------------|------------------------|
| Solder pin length            | 1.5 mm                 |
| Solder pin dimensions        | 1.2 x 0.75 mm          |
| Plated through-hole diameter | 1.5 <sup>+0.1</sup> mm |

| Material Data               |                          |
|-----------------------------|--------------------------|
| Material group              | I                        |
| Insulation material         | Polyphthalamide (PPA GF) |
| Flammability class per UL94 | V0                       |
| Limit temperature range     | -60 ... +105 °C          |
| Contact material            | Copper alloy             |
| Contact plating             | Tin-plated               |

**Application notes:**

Suitable for lead-free, reflow-soldering profiles per DIN EN 61760-1 and IEC 60068-2-58 up to max. 260°C peak temperature. Due to application-specific variables (component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

**Recommendation for SMD stencil:**

Material thickness: 150 µm; layout identical to metal-plated PCB hole outer diameter

### THR PCB Terminal Block ▶ 2061 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 6 mm / 0.24 inch ▶ Solder pin length: 2.4 mm

2 solder pins/pole; white\*; Reel diameter: 330 mm

2 solder pins/pole; black; Reel diameter: 330 mm



Insert solid conductors via push-in termination.

2

| Solder pin length: 2.4 mm |                   |            |
|---------------------------|-------------------|------------|
| Pole No.                  | Item No.          | PU         |
| 1                         | 2061-1601/998-404 | 5760 (640) |
| 2                         | 2061-1602/998-404 | 4320 (480) |
| 3                         | 2061-1603/998-404 | 2880 (320) |

| Solder pin length: 2.4 mm |                   |            |
|---------------------------|-------------------|------------|
| Pole No.                  | Item No.          | PU         |
| 1                         | 2061-1621/998-404 | 5760 (640) |
| 2                         | 2061-1622/998-404 | 4320 (480) |
| 3                         | 2061-1623/998-404 | 2880 (320) |

| Solder pin length: 1.5 mm |                   |            |
|---------------------------|-------------------|------------|
| Pole No.                  | Item No.          | PU         |
| 1                         | 2061-1641/998-404 | 5760 (640) |
| 2                         | 2061-1642/998-404 | 4320 (480) |
| 3                         | 2061-1643/998-404 | 2880 (320) |

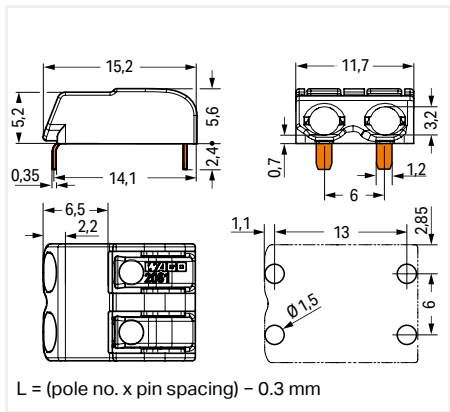
| Solder pin length: 1.5 mm |                   |            |
|---------------------------|-------------------|------------|
| Pole No.                  | Item No.          | PU         |
| 1                         | 2061-1661/998-404 | 5760 (640) |
| 2                         | 2061-1662/998-404 | 4320 (480) |
| 3                         | 2061-1663/998-404 | 2880 (320) |

\*Depending on reflow soldering temperatures and times, color deviations may occur. These deviations will have no impact on functionality.

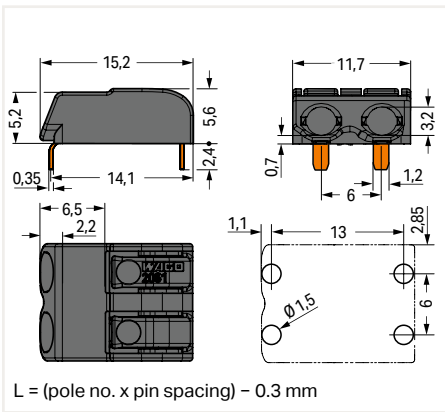


Insert/remove fine-stranded conductors by lightly pressing on a push-button, e.g., via operating tool (Item No. 206-861).

Dimensions in mm

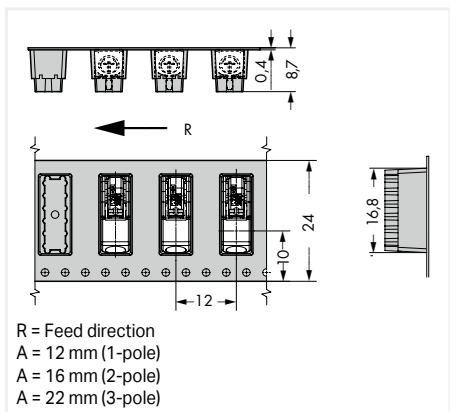


Dimensions in mm

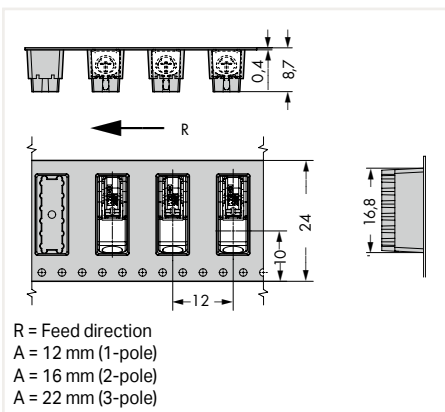


Available in tape-and-reel packaging for automated assembly

Dimensions in mm



Dimensions in mm



## PCB Terminal Block ▶ 250 Series

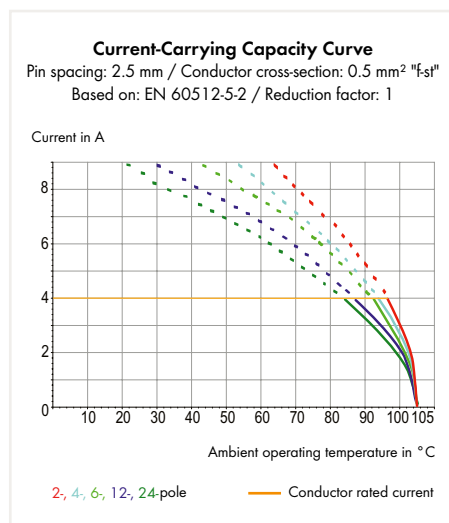
Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ Terminal strip ▶ 0.5 mm<sup>2</sup> ▶

Pin spacing: 2.5 mm / 0.098 inch ▶ Color: gray



- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request

2



| Electrical Data                  |  |        |        |                    |        |        |
|----------------------------------|--|--------|--------|--------------------|--------|--------|
| Pin spacing                      | 2.5 mm / 0.098 inch                          |        |        | 2.54 mm / 0.1 inch |        |        |
| Ratings per                      | IEC/EN 60664-1                               |        |        | IEC/EN 60664-1     |        |        |
| Overvoltage category             | III  | III    | II     | III                | III    | II     |
| Pollution degree                 | 3  | 2      | 2      | 3                  | 2      | 2      |
| Rated voltage                    | 160 V  | 160 V  | 320 V  | 160 V              | 160 V  | 320 V  |
| Rated surge voltage              | 2.5 kV                                       | 2.5 kV | 2.5 kV | 2.5 kV             | 2.5 kV | 2.5 kV |
| Rated current                    | 4 A  | 4 A    | 4 A    | 4 A                | 4 A    | 4 A    |
| Approvals per                    | UL 1059                                      |        |        | UL 1059            |        |        |
| Use group                        | B  | C      | D      | B                  | C      | D      |
| Rated voltage                    | 300 V  | –      | 300 V  | 300 V              | –      | 600 V  |
| Rated current                    | 5 A  | –      | 5 A    | 5 A                | –      | 5 A    |
| Approvals per                    | CSA  |        |        | CSA                |        |        |
| Use group                        | B  | C      | D      | B                  | C      | D      |
| Rated voltage                    | 300 V  | –      | 300 V  | 300 V              | –      | 300 V  |
| Rated current                    | 2 A  | –      | 2 A    | 2 A                | –      | 2 A    |
| Connection Data                  |  |        |        |                    |        |        |
| Connection technology            | Push-in CAGE CLAMP®                          |        |        |                    |        |        |
| Strip length                     | 8.5 ... 9.5 mm / 0.32 ... 0.36 inch          |        |        |                    |        |        |
| Conductor entry angle to the PCB | 45°  |        |        |                    |        |        |
| Conductor cross-sections         |  |        |        |                    |        |        |
| Solid conductor                  | 0.14 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG |        |        |                    |        |        |
| Fine-stranded conductor          | 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG  |        |        |                    |        |        |
| Solder Pin Data                  |  |        |        |                    |        |        |
| Solder pin length                | 3.6 mm                                       |        |        |                    |        |        |
| Solder pin dimensions            | 0.4 x 0.75 mm                                |        |        |                    |        |        |
| Drilled hole diameter            | 1.1 <sup>+0.1</sup> mm                       |        |        |                    |        |        |
| Material Data                    |  |        |        |                    |        |        |
| Material group                   | I  |        |        |                    |        |        |
| Insulation material              | Polyamide 66 (PA 66)                         |        |        |                    |        |        |
| Flammability class per UL94      | V0   |        |        |                    |        |        |
| Limit temperature range          | –60 ... +105 °C                              |        |        |                    |        |        |
| Contact material                 | Copper alloy                                 |        |        |                    |        |        |
| Contact plating                  | Tin-plated                                   |        |        |                    |        |        |

# PCB Terminal Block ▶ 250 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ Terminal strip ▶ 0.5 mm<sup>2</sup> ▶

Pin spacing: 2.5 mm / 0.098 inch ▶ Color: gray

Pin spacing: 2.5 mm / 0.098 inch

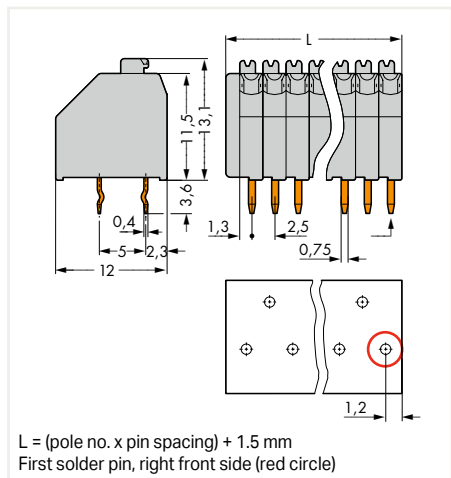
Pin spacing: 2.54 mm / 0.1 inch



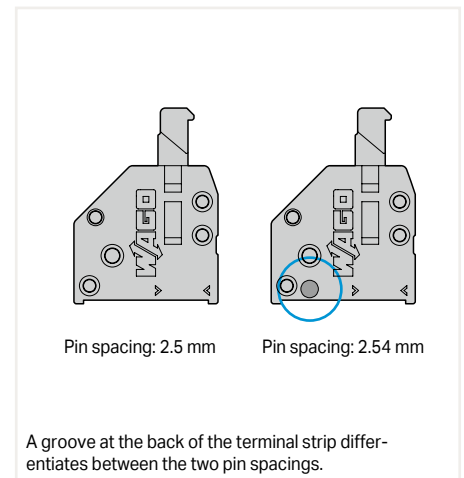
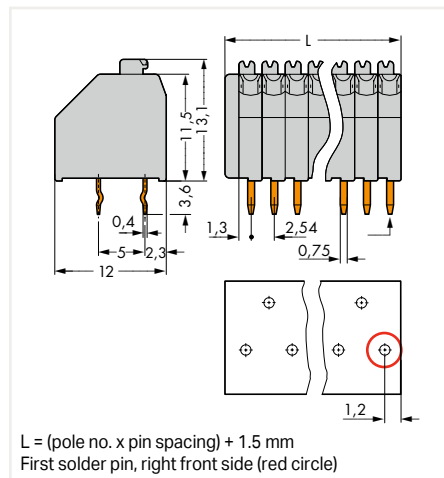
2

| Pole No. | Item No. | PU (SPU)  | Pole No. | Item No. | PU (SPU)  |
|----------|----------|-----------|----------|----------|-----------|
| 2        | 250-402  | 720 (80)  | 2        | 250-1402 | 720 (80)  |
| 3        | 250-403  | 520 (130) | 3        | 250-1403 | 520 (130) |
| 4        | 250-404  | 400 (100) | 4        | 250-1404 | 400 (100) |
| 5        | 250-405  | 340 (85)  | 5        | 250-1405 | 340 (85)  |
| 6        | 250-406  | 280 (70)  | 6        | 250-1406 | 280 (70)  |
| 7        | 250-407  | 240 (60)  | 7        | 250-1407 | 240 (60)  |
| 8        | 250-408  | 220 (55)  | 8        | 250-1408 | 200 (50)  |
| 9        | 250-409  | 200 (50)  | 9        | 250-1409 | 180 (45)  |
| 10       | 250-410  | 180 (45)  | 10       | 250-1410 | 160 (40)  |
| 11       | 250-411  | 160 (40)  | 11       | 250-1411 | 160 (40)  |
| 12       | 250-412  | 140 (35)  | 12       | 250-1412 | 140 (35)  |
| 13       | 250-413  | 140 (35)  | 13       | 250-1413 | 120 (30)  |
| 14       | 250-414  | 120 (30)  | 14       | 250-1414 | 120 (30)  |
| 15       | 250-415  | 120 (30)  | 15       | 250-1415 | 120 (30)  |
| 16       | 250-416  | 100 (25)  | 16       | 250-1416 | 100 (25)  |
| 17       | 250-417  | 100 (25)  | 17       | 250-1417 | 100 (25)  |
| 18       | 250-418  | 80 (20)   | 18       | 250-1418 | 100 (25)  |
| 19       | 250-419  | 80 (20)   | 19       | 250-1419 | 80 (20)   |
| 20       | 250-420  | 80 (20)   | 20       | 250-1420 | 80 (20)   |
| 21       | 250-421  | 80 (20)   | 21       | 250-1421 | 80 (20)   |
| 22       | 250-422  | 80 (20)   | 22       | 250-1422 | 80 (20)   |
| 23       | 250-423  | 80 (20)   | 23       | 250-1423 | 60 (15)   |
| 24       | 250-424  | 60 (15)   | 24       | 250-1424 | 60 (15)   |

Dimensions in mm



Dimensions in mm

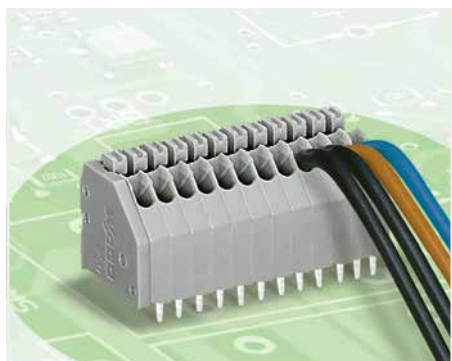


**Variants:**

- Other pole numbers
- Direct marking
- Mixed-color PCB connector strips
- Terminal strips with spacers
- Other colors: ● black, ● red, ● green, ● orange, ● blue, ○ light gray, ○ white, ● violet
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

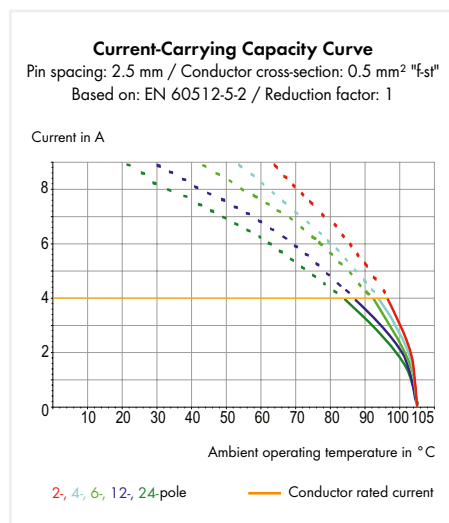
## PCB Terminal Block ▶ 250 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 0.5 mm<sup>2</sup> ▶ Solder pin arrangement: over the entire terminal strip (in-line) ▶ Pin spacing: 2.5 mm / 0.098 inch ▶ Color: gray



- Compact PCB terminal strips with push-buttons
- Version with in-line solder pins
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request

2



### Electrical Data

|                      |                     |        |        |
|----------------------|---------------------|--------|--------|
| Pin spacing          | 2.5 mm / 0.098 inch |        |        |
| Ratings per          | IEC/EN 60664-1      |        |        |
| Overvoltage category | III                 | III    | II     |
| Pollution degree     | 3                   | 2      | 2      |
| Rated voltage        | 100 V               | 160 V  | 320 V  |
| Rated surge voltage  | 2.5 kV              | 2.5 kV | 2.5 kV |
| Rated current        | 4 A                 | 4 A    | 4 A    |

### Connection Data

|                                  |  |
|----------------------------------|--|
| Connection technology            | Push-in CAGE CLAMP®                          |
| Strip length                     | 8.5 ... 9.5 mm / 0.32 ... 0.36 inch          |
| Conductor entry angle to the PCB | 45°  |
| Conductor cross-sections         |  |
| Solid conductor                  | 0.14 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG |
| Fine-stranded conductor          | 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG  |

### Solder Pin Data

|                       |                        |
|-----------------------|------------------------|
| Solder pin length     | 3.6 mm                 |
| Solder pin dimensions | 0.4 x 0.75 mm          |
| Drilled hole diameter | 1.1 <sup>+0.1</sup> mm |

### Material Data

|                             |                      |
|-----------------------------|----------------------|
| Material group              | I                    |
| Insulation material         | Polyamide 66 (PA 66) |
| Flammability class per UL94 | V0                   |
| Limit temperature range     | -60 ... +105 °C      |
| Contact material            | Copper alloy         |
| Contact plating             | Tin-plated           |



## PCB Terminal Block ▶ 250 Series

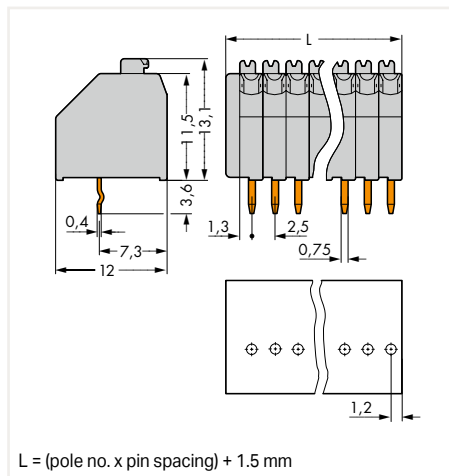
Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 0.5 mm<sup>2</sup> ▶ Solder pin arrangement: over the entire terminal strip (in-line) ▶ Pin spacing: 2.5 mm / 0.098 inch ▶ Color: gray

Pin spacing: 2.5 mm / 0.098 inch



| Pole No. | Item No. | PU (SPU)  |
|----------|----------|-----------|
| 2        | 250-302  | 720 (80)  |
| 3        | 250-303  | 520 (130) |
| 4        | 250-304  | 400 (100) |
| 5        | 250-305  | 340 (85)  |
| 6        | 250-306  | 280 (70)  |
| 7        | 250-307  | 240 (60)  |
| 8        | 250-308  | 220 (55)  |
| 9        | 250-309  | 200 (50)  |
| 10       | 250-310  | 180 (45)  |
| 11       | 250-311  | 160 (40)  |
| 12       | 250-312  | 140 (35)  |
| 13       | 250-313  | 140 (35)  |
| 14       | 250-314  | 120 (30)  |
| 15       | 250-315  | 120 (30)  |
| 16       | 250-316  | 100 (25)  |
| 17       | 250-317  | 100 (25)  |
| 18       | 250-318  | 80 (20)   |
| 19       | 250-319  | 80 (20)   |
| 20       | 250-320  | 80 (20)   |
| 21       | 250-321  | 80 (20)   |
| 22       | 250-322  | 80 (20)   |
| 23       | 250-323  | 80 (20)   |
| 24       | 250-324  | 60 (15)   |

Dimensions in mm

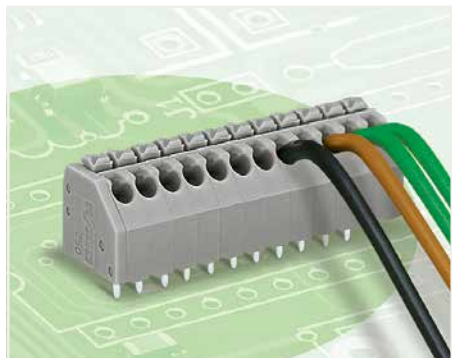


Variants:

- Other pole numbers
- Direct marking
- Mixed-color PCB connector strips
- Terminal strips with spacers
- Other colors: ● black, ● red, ● green, ● orange, ● blue, ○ light gray, ○ white, ● violet
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

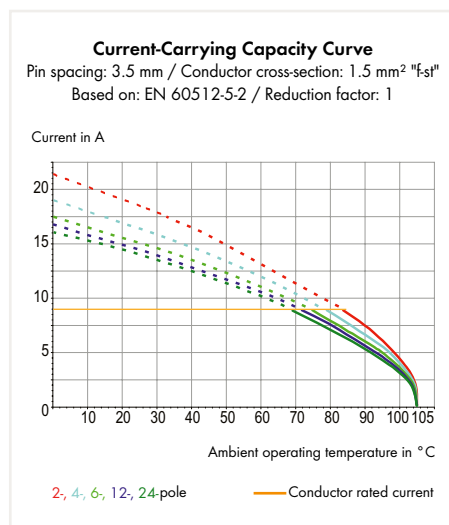
## PCB Terminal Block ▶ 250 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Solder pin arrangement: over the entire terminal strip (in-line) ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Color: gray



- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring
- Custom color combinations
- Terminal strips also available with spacers upon request

2



| Electrical Data      | 1 front solder pin/pole |        |        | 1 staggered solder pin/pole |       |       |
|----------------------|-------------------------|--------|--------|-----------------------------|-------|-------|
| Pin spacing          | 3.5 mm / 0.138 inch     |        |        | 3.5 mm / 0.138 inch         |       |       |
| Ratings per          | IEC/EN 60664-1          |        |        | IEC/EN 60664-1              |       |       |
| Overtoltage category | III                     | III    | II     | III                         | III   | II    |
| Pollution degree     | 3                       | 2      | 2      | 3                           | 2     | 2     |
| Rated voltage        | 160 V                   | 160 V  | 320 V  | 250 V                       | 320 V | 630 V |
| Rated surge voltage  | 2.5 kV                  | 2.5 kV | 2.5 kV | 4 kV                        | 4 kV  | 4 kV  |
| Rated current        | 8 A                     | 8 A    | 8 A    | 8 A                         | 8 A   | 8 A   |
| Approvals per        | UL 1059                 |        |        | UL 1059                     |       |       |
| Use group            | B                       | C      | D      | B                           | C     | D     |
| Rated voltage        | 300 V                   | -      | 300 V  | 300 V                       | -     | 300 V |
| Rated current        | 5 A                     | -      | 5 A    | 5 A                         | -     | 5 A   |
| Approvals per        | CSA                     |        |        | CSA                         |       |       |
| Use group            | B                       | C      | D      | B                           | C     | D     |
| Rated voltage        | 300 V                   | -      | 300 V  | 300 V                       | -     | 300 V |
| Rated current        | 10 A                    | -      | 10 A   | 10 A                        | -     | 10 A  |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Strip length                                      | 8.5 ... 9.5 mm / 0.32 ... 0.36 inch         |
| Conductor entry angle to the PCB                  | 45°   |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG |
| Fine-stranded conductor                           | 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>                  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>                  |

| Solder Pin Data       |                        |
|-----------------------|------------------------|
| Solder pin length     | 3.6 mm                 |
| Solder pin dimensions | 0.4 x 0.75 mm          |
| Drilled hole diameter | 1.1 <sup>+0.1</sup> mm |

| Material Data               |                      |
|-----------------------------|----------------------|
| Material group              | I                    |
| Insulation material         | Polyamide 66 (PA 66) |
| Flammability class per UL94 | V0                   |
| Limit temperature range     | -60 ... +105 °C      |
| Contact material            | Copper alloy         |
| Contact plating             | Tin-plated           |

### PCB Terminal Block ▶ 250 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Solder pin arrangement: over the entire terminal strip (in-line) ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Color: gray

1 solder pin/pole, front in-line

1 staggered solder pin/pole

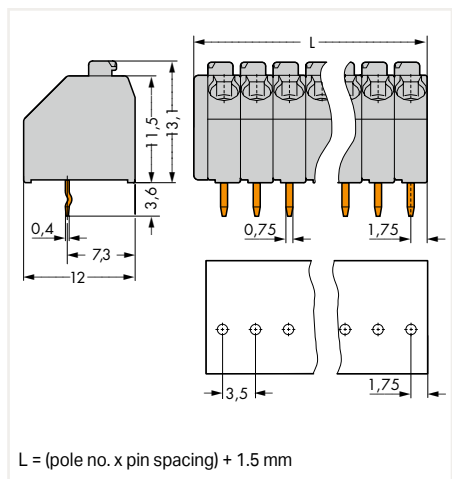


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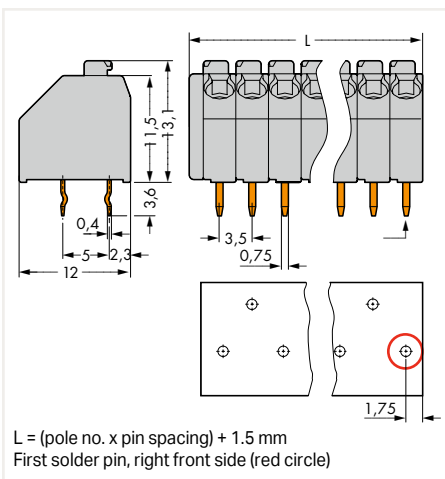
| Pole No. | Item No. | PU (SPU)  |
|----------|----------|-----------|
| 2        | 250-102  | 560 (140) |
| 3        | 250-103  | 400 (100) |
| 4        | 250-104  | 300 (75)  |
| 5        | 250-105  | 240 (60)  |
| 6        | 250-106  | 200 (50)  |
| 7        | 250-107  | 180 (45)  |
| 8        | 250-108  | 160 (40)  |
| 9        | 250-109  | 140 (35)  |
| 10       | 250-110  | 120 (30)  |
| 11       | 250-111  | 120 (30)  |
| 12       | 250-112  | 100 (25)  |
| 13       | 250-113  | 100 (25)  |
| 14       | 250-114  | 80 (20)   |
| 15       | 250-115  | 80 (20)   |
| 16       | 250-116  | 80 (20)   |
| 17       | 250-117  | 80 (20)   |
| 18       | 250-118  | 60 (15)   |
| 19       | 250-119  | 60 (15)   |
| 20       | 250-120  | 60 (15)   |
| 21       | 250-121  | 60 (15)   |
| 22       | 250-122  | 60 (15)   |
| 23       | 250-123  | 60 (15)   |
| 24       | 250-124  | 40 (10)   |

| Pole No. | Item No. | PU (SPU)  |
|----------|----------|-----------|
| 2        | 250-202  | 560 (140) |
| 3        | 250-203  | 400 (100) |
| 4        | 250-204  | 300 (75)  |
| 5        | 250-205  | 240 (60)  |
| 6        | 250-206  | 200 (50)  |
| 7        | 250-207  | 180 (45)  |
| 8        | 250-208  | 160 (40)  |
| 9        | 250-209  | 140 (35)  |
| 10       | 250-210  | 120 (30)  |
| 11       | 250-211  | 120 (30)  |
| 12       | 250-212  | 100 (25)  |
| 13       | 250-213  | 100 (25)  |
| 14       | 250-214  | 80 (20)   |
| 15       | 250-215  | 80 (20)   |
| 16       | 250-216  | 80 (20)   |
| 17       | 250-217  | 80 (20)   |
| 18       | 250-218  | 60 (15)   |
| 19       | 250-219  | 60 (15)   |
| 20       | 250-220  | 60 (15)   |
| 21       | 250-221  | 60 (15)   |
| 22       | 250-222  | 60 (15)   |
| 23       | 250-223  | 60 (15)   |
| 24       | 250-224  | 40 (10)   |

Dimensions in mm



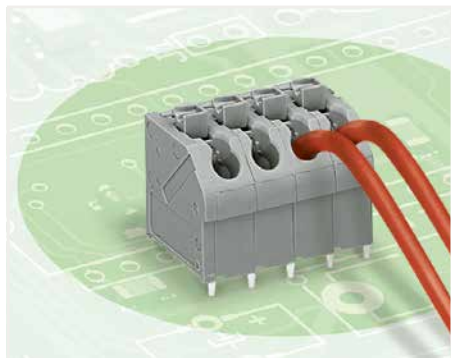
Dimensions in mm



- Variants:
- Other pole numbers
  - Direct marking
  - Mixed-color PCB connector strips
  - Terminal strips with spacers
  - Other colors: ● black, ● red, ● green, ● orange, ● blue, ○ light gray, ● brown, ● light green, ● yellow, ● violet, ○ white, ● pink
  - Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## PCB Terminal Block ▶ 250 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Solder pin arrangement: across the entire terminal strip (in-line) ▶ Color: gray



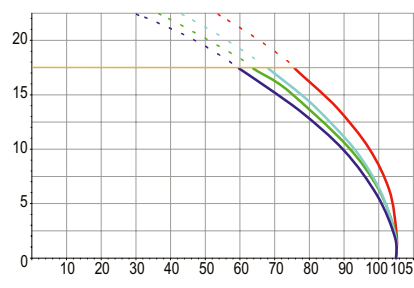
- Compact PCB terminal strips with push-buttons
- Push-in termination of solid conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring

2

### Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "s"  
Based on: EN 60512-5-2 / Reduction factor: 1

Current in A



2-, 4-, 6-, 12-pole

— Conductor rated current

### Electrical Data

| Pin spacing          | 5 mm / 0.197 inch          |        |        | 7.5 mm / 0.295 inch |        |        |
|----------------------|----------------------------|--------|--------|---------------------|--------|--------|
|                      | Ratings per IEC/EN 60664-1 |        |        |                     |        |        |
| Overvoltage category | III                        | III    | II     | III                 | III    | II     |
| Pollution degree     | 3                          | 2      | 2      | 3                   | 2      | 2      |
| Rated voltage        | 320 V                      | 320 V  | 630 V  | 500 V               | 630 V  | 1000 V |
| Rated surge voltage  | 4 kV                       | 4 kV   | 4 kV   | 6 kV                | 6 kV   | 6 kV   |
| Rated current        | 17.5 A                     | 17.5 A | 17.5 A | 17.5 A              | 17.5 A | 17.5 A |

| Approvals per | UL 1059 |   |       | UL 1059 |   |       |
|---------------|---------|---|-------|---------|---|-------|
|               | B       | C | D     | B       | C | D     |
| Use group     | B       | C | D     | B       | C | D     |
| Rated voltage | 300 V   | – | 300 V | 300 V   | – | 300 V |
| Rated current | 2 A     | – | 2 A   | 2 A     | – | 2 A   |

| Approvals per | CSA   |   |       | CSA   |   |       |
|---------------|-------|---|-------|-------|---|-------|
|               | B     | C | D     | B     | C | D     |
| Use group     | B     | C | D     | B     | C | D     |
| Rated voltage | 300 V | – | 300 V | 300 V | – | 300 V |
| Rated current | 10 A  | – | 10 A  | 10 A  | – | 10 A  |

### Connection Data

|   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inch             |
| Conductor entry angle to the PCB                  | 45°  |
| Conductor cross-sections                          |  |
| Solid conductor                                   | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 14 AWG  |
| Fine-stranded conductor                           | 0.75 ... 1.5 mm <sup>2</sup> / 18 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.5 ... 1 mm <sup>2</sup>                    |
| Fine-stranded conductor; with uninsulated ferrule | 0.5 ... 1 mm <sup>2</sup>                    |

### Solder Pin Data

|                       |                        |
|-----------------------|------------------------|
| Solder pin length     | 4 mm                   |
| Solder pin dimensions | 0.5 x 0.75 mm          |
| Drilled hole diameter | 1.2 <sup>+0.1</sup> mm |

### Material Data

|                             |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | –60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | Tin-plated                             |

## PCB Terminal Block ▶ 250 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Solder pin arrangement: across the entire terminal strip (in-line) ▶ Color: gray

Pin spacing: 5 mm / 0.197 inch

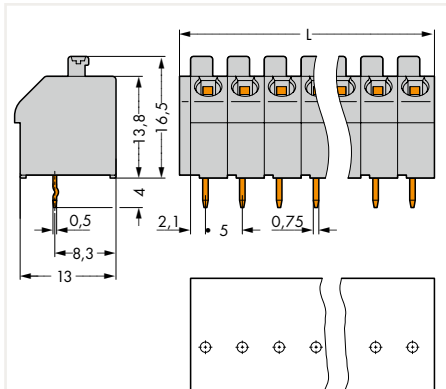
Pin spacing: 7.5 mm / 0.295 inch



| Pole No. | Item No. | PU        |
|----------|----------|-----------|
| 2        | 250-502  | 400 (100) |
| 3        | 250-503  | 280 (70)  |
| 4        | 250-504  | 220 (55)  |
| 5        | 250-505  | 180 (45)  |
| 6        | 250-506  | 140 (35)  |
| 7        | 250-507  | 120 (30)  |
| 8        | 250-508  | 100 (25)  |
| 9        | 250-509  | 100 (25)  |
| 10       | 250-510  | 80 (20)   |
| 11       | 250-511  | 80 (20)   |
| 12       | 250-512  | 60 (15)   |
| 13       | 250-513  | 60 (15)   |
| 14       | 250-514  | 60 (15)   |
| 15       | 250-515  | 60 (15)   |
| 16       | 250-516  | 40 (10)   |

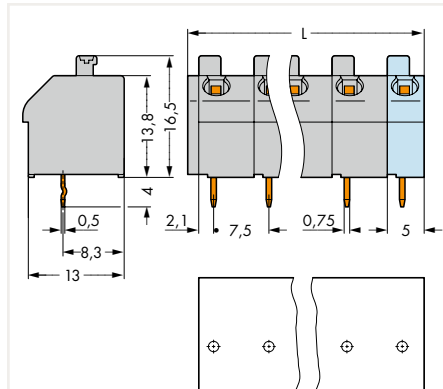
| Pole No. | Item No. | PU       |
|----------|----------|----------|
| 2        | 250-602  | 340 (85) |
| 3        | 250-603  | 200 (50) |
| 4        | 250-604  | 160 (40) |
| 5        | 250-605  | 120 (30) |
| 6        | 250-606  | 100 (25) |
| 7        | 250-607  | 80 (20)  |
| 8        | 250-608  | 80 (20)  |
| 9        | 250-609  | 60 (15)  |
| 10       | 250-610  | 60 (15)  |
| 11       | 250-611  | 40 (10)  |
| 12       | 250-612  | 40 (10)  |

Dimensions in mm



$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

Dimensions in mm



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 5 \text{ mm} + 1.5 \text{ mm}$

### Variants:

- Other pole numbers
- Direct marking
- Mixed-color PCB connector strips
- Other colors: red, orange, blue, light gray, brown, light green, yellow, white
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

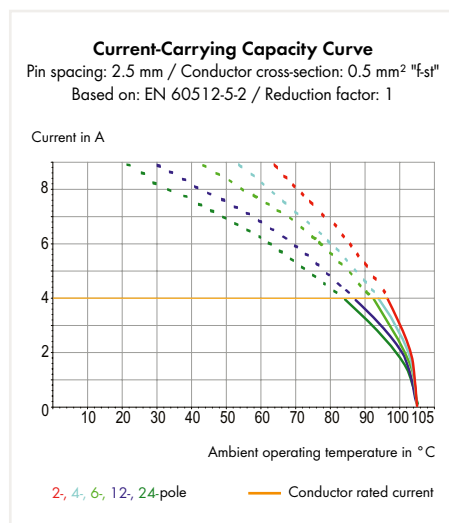
**THR PCB Terminal Block ▶ 250 Series**Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ Terminal strip ▶ 0.5 mm<sup>2</sup> ▶

Pin spacing: 2.5 mm / 0.098 inch ▶ Color: black



- Cost-effective integration of high-temperature resistant THR terminal strips into SMT reflow soldering processes
- Versions with suction pads are available in tape-and-reel packaging for automated assembly
- Push-in termination of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring

2



| Electrical Data                  |  |        |        |
|----------------------------------|--|--------|--------|
| Pin spacing                      | 2.5 mm / 0.098 inch                          |        |        |
| Ratings per                      | IEC/EN 60664-1                               |        |        |
| Overvoltage category             | III  | III    | II     |
| Pollution degree                 | 3  | 2      | 2      |
| Rated voltage                    | 160 V  | 160 V  | 250 V  |
| Rated surge voltage              | 2.5 kV                                       | 2.5 kV | 2.5 kV |
| Rated current                    | 4 A  | 4 A    | 4 A    |
| Approvals per                    | UL 1059                                      |        |        |
| Use group                        | B  | C      | D      |
| Rated voltage                    | 300 V  | -      | 300 V  |
| Rated current                    | 5 A  | -      | 5 A    |
| Approvals per                    | CSA  |        |        |
| Use group                        | B  | C      | D      |
| Rated voltage                    | 300 V  | -      | 300 V  |
| Rated current                    | 2 A  | -      | 2 A    |
| Connection Data                  |  |        |        |
| Connection technology            | Push-in CAGE CLAMP®                          |        |        |
| Strip length                     | 8.5 ... 9.5 mm / 0.32 ... 0.36 inch          |        |        |
| Conductor entry angle to the PCB | 45°  |        |        |
| Conductor cross-sections         |  |        |        |
| Solid conductor                  | 0.14 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG |        |        |
| Fine-stranded conductor          | 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG  |        |        |
| Solder Pin Data                  |  |        |        |
| Solder pin length                | 2.4 mm                                       |        |        |
| Solder pin dimensions            | 0.4 x 0.75 mm                                |        |        |
| Drilled hole diameter            | 1 <sup>+0.1</sup> mm                         |        |        |
| Material Data                    |  |        |        |
| Material group                   | III a  |        |        |
| Insulation material              | Polyamide 46 (PA 46)                         |        |        |
| Flammability class per UL94      | V2   |        |        |
| Limit temperature range          | -60 ... +105 °C                              |        |        |
| Contact material                 | Copper alloy                                 |        |        |
| Contact plating                  | Tin-plated                                   |        |        |



**THR PCB Terminal Block ▶ 250 Series**Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ Terminal strip ▶ 0.5 mm<sup>2</sup> ▶

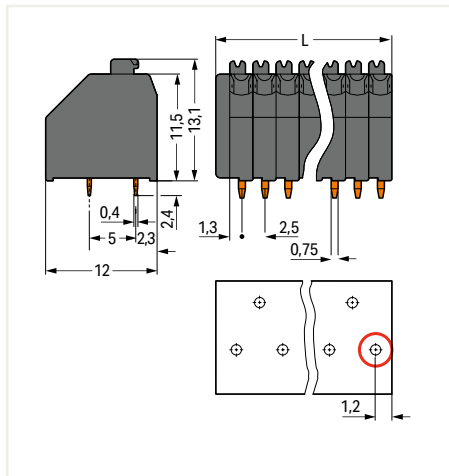
Pin spacing: 2.5 mm / 0.098 inch ▶ Color: black

1 staggered solder pin/pole



| Pole No. | Item No.        | PU (SPU)  |
|----------|-----------------|-----------|
| 2        | 250-402/353-604 | 720 (180) |
| 3        | 250-403/353-604 | 520 (130) |
| 4        | 250-404/353-604 | 400 (100) |
| 5        | 250-405/353-604 | 340 (85)  |
| 6        | 250-406/353-604 | 280 (70)  |
| 7        | 250-407/353-604 | 240 (60)  |
| 8        | 250-408/353-604 | 220 (55)  |
| 10       | 250-410/353-604 | 180 (45)  |

Dimensions in mm



L = (pole no. x pin spacing) + 1.5 mm

First solder pin, right front side (red circle)

## Variants:

- Other pole numbers
- Direct marking
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

**THR PCB Terminal Block ▶ 250 Series**Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ Terminal strip ▶ 1.5 mm<sup>2</sup> ▶

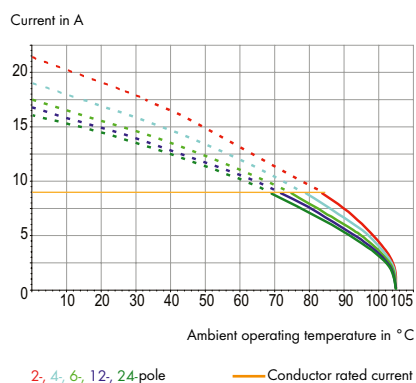
Pin spacing: 3.5 mm / 0.138 inch ▶ Color: black



- Cost-effective integration of high-temperature resistant THR terminal strips into SMT reflow soldering processes
- Versions with suction pads are available in tape-and-reel packaging for automated assembly
- Push-in termination of solid and ferruled conductors
- Termination/removal of fine-stranded conductors via push-buttons
- 45° conductor entry angle provides easy, space-saving wiring

**Current-Carrying Capacity Curve**

Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1



| Electrical Data      | 1 front solder pin/pole |       |       |
|----------------------|-------------------------|-------|-------|
| Pin spacing          | 3.5 mm / 0.138 inch     |       |       |
| Ratings per          | IEC/EN 60664-1          |       |       |
| Overvoltage category | III                     | III   | II    |
| Pollution degree     | 3                       | 2     | 2     |
| Rated voltage        | 200 V                   | 320 V | 320 V |
| Rated surge voltage  | 4 kV                    | 4 kV  | 4 kV  |
| Rated current        | 8 A                     | 8 A   | 8 A   |

| Approvals per | UL 1059 |   |       |
|---------------|---------|---|-------|
| Use group     | B       | C | D     |
| Rated voltage | 300 V   | - | 300 V |
| Rated current | 5 A     | - | 5 A   |

| Approvals per | CSA   |   |       |
|---------------|-------|---|-------|
| Use group     | B     | C | D     |
| Rated voltage | 300 V | - | 300 V |
| Rated current | 10 A  | - | 10 A  |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Strip length                                      | 8.5 ... 9.5 mm / 0.32 ... 0.36 inch         |
| Conductor entry angle to the PCB                  | 45°   |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG |
| Fine-stranded conductor                           | 0.2 ... 0.5 mm <sup>2</sup> / 24 ... 20 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>                  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>                  |

| Solder Pin Data       |                      |
|-----------------------|----------------------|
| Solder pin length     | 2.4 mm               |
| Solder pin dimensions | 0.4 x 0.75 mm        |
| Drilled hole diameter | 1 <sup>+0.1</sup> mm |

| Material Data               |                      |
|-----------------------------|----------------------|
| Material group              | III a                |
| Insulation material         | Polyamide 46 (PA 46) |
| Flammability class per UL94 | V2                   |
| Limit temperature range     | -60 ... +105 °C      |
| Contact material            | Copper alloy         |
| Contact plating             | Tin-plated           |

2

### THR PCB Terminal Block ▶ 250 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ Terminal strip ▶ 1.5 mm<sup>2</sup> ▶

Pin spacing: 3.5 mm / 0.138 inch ▶ Color: black

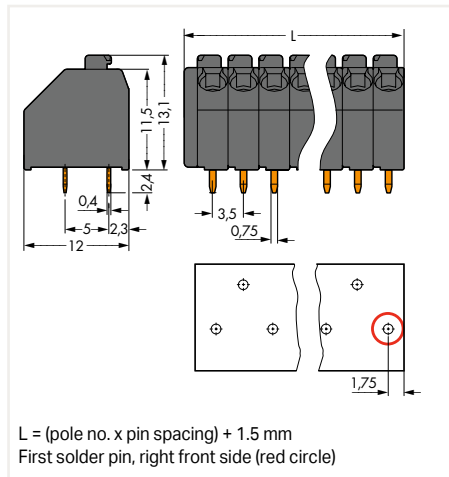
Variants with additional suction pad in tape-and-reel packaging per IEC 60286-3; 330 mm reel diameter; 160 units/reel



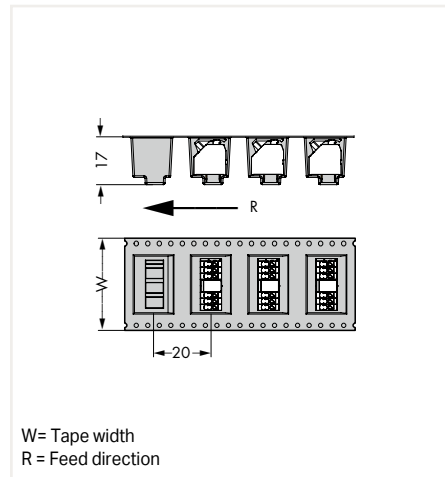
2

| Pole No. | Item No.        | PU (SPU)  | Pole No. | Item No.                | W (mm) |
|----------|-----------------|-----------|----------|-------------------------|--------|
| 2        | 250-202/353-604 | 560 (140) | 2        | 250-202/353-604/997-404 | 24     |
| 3        | 250-203/353-604 | 400 (100) | 3        | 250-203/353-604/997-404 | 24     |
| 4        | 250-204/353-604 | 300 (75)  | 4        | 250-204/353-604/997-405 | 32     |
| 5        | 250-205/353-604 | 240 (60)  | 5        | 250-205/353-604/997-405 | 32     |
| 6        | 250-206/353-604 | 200 (50)  | 6        | 250-206/353-604/997-406 | 44     |
| 7        | 250-207/353-604 | 180 (45)  | 7        | 250-207/353-604/997-406 | 44     |
| 8        | 250-208/353-604 | 160 (40)  | 8        | 250-208/353-604/997-406 | 44     |

Dimensions in mm



Dimensions in mm



Variants:

- Other pole numbers
- Direct marking
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

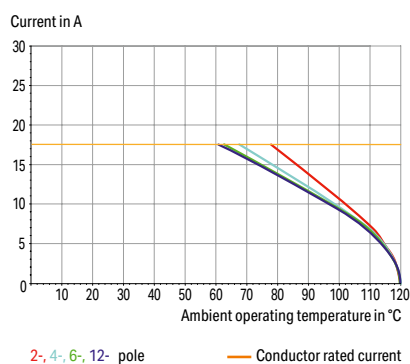
**THR PCB Terminal Block ▶ 2086 Series**

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Solder pin arrangement: over the entire terminal strip (staggered) ▶ Color: black



- Ideal for compact device connection, panel feedthrough and tight spaces
- Push-in CAGE CLAMP® termination of solid and ferruled fine-stranded conductors
- SMD and THR variants available
- Push-button moves parallel to conductor entry
- Conductor connection and mating direction both parallel and perpendicular to the PCB
- Optionally available with in-line or staggered pins (3.5 and 5 mm pin spacing)

**Current-Carrying Capacity Curve**  
Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1

**Electrical Data**

| Pin spacing          | 3.5 mm / 0.138 inch |        |        |
|----------------------|---------------------|--------|--------|
| Ratings per          | IEC/EN 60664-1      |        |        |
| Overvoltage category | III                 | III    | II     |
| Pollution degree     | 3                   | 2      | 2      |
| Rated voltage        | 250 V               | 320 V  | 630 V  |
| Rated surge voltage  | 4 kV                | 4 kV   | 4 kV   |
| Rated current        | 17.5 A              | 17.5 A | 17.5 A |
| Approvals per        | UL 1059             |        |        |
| Use group            | B                   | C      | D      |
| Rated voltage        | 300 V               | -      | 300 V  |
| Rated current        | 14 A                | -      | 10 A   |
| Approvals per        | CSA                 |        |        |
| Use group            | B                   | C      | D      |
| Rated voltage        | 300 V               | -      | 300 V  |
| Rated current        | 14 A                | -      | 14 A   |

**Connection Data**

|   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®  |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inch                                |
| Solid conductor                                   | 0.14 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG (10 A per UL/CSA) |
| Fine-stranded conductor                           | 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 AWG (14 A per UL/CSA) |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup>                                  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup>                                   |

**Material Data**

|                             |  |
|-----------------------------|--|
| Insulation material         | Polyphthalamide (PPA GF)               |
| Flammability class per UL94 | V0                                     |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin                                    |

**Mechanical Data**

|                                    |   |
|------------------------------------|---|
| Solder pin arrangement             | Solder pin arrangement staggered over the entire terminal strip |
| Solder pin dimensions              | 0.3 x 0.8 mm  |
| Plated through-hole diameter (THR) | 1 <sup>(+0.1)</sup> mm  |

**Environmental Requirements**

|                         |                 |
|-------------------------|-----------------|
| Limit temperature range | -60 ... +105 °C |
|-------------------------|-----------------|

### THR PCB Terminal Block ▶ 2086 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Solder pin arrangement: over the entire terminal strip (staggered) ▶ Color: black

Solder pin length: 1.5 mm ▶ Conductor connection direction to PCB 0°

Solder pin length: 1.5 mm ▶ Conductor connection direction to PCB 90°



2086-1225/300-000

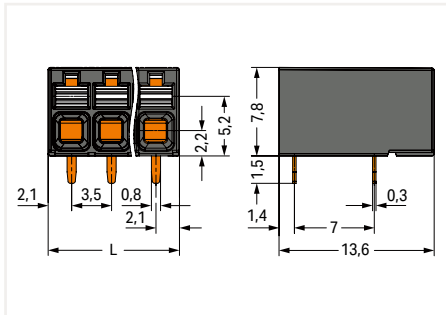


2086-1125/300-000

| Pole No. | Item No.          | PU  |
|----------|-------------------|-----|
| 2        | 2086-1222/300-000 | 432 |
| 3        | 2086-1223/300-000 | 300 |
| 4        | 2086-1224/300-000 | 228 |
| 5        | 2086-1225/300-000 | 180 |
| 6        | 2086-1226/300-000 | 144 |
| 7        | 2086-1227/300-000 | 132 |
| 8        | 2086-1228/300-000 | 108 |
| 9        | 2086-1229/300-000 | 96  |
| 10       | 2086-1230/300-000 | 84  |
| 11       | 2086-1231/300-000 | 84  |
| 12       | 2086-1232/300-000 | 72  |

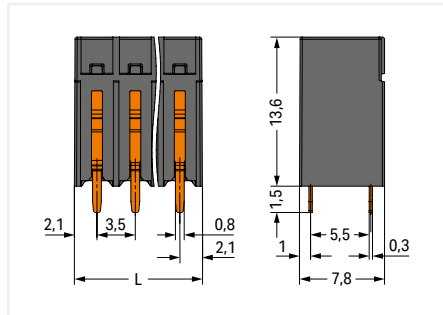
| Pole No. | Item No.          | PU  |
|----------|-------------------|-----|
| 2        | 2086-1122/300-000 | 432 |
| 3        | 2086-1123/300-000 | 300 |
| 4        | 2086-1124/300-000 | 228 |
| 5        | 2086-1125/300-000 | 180 |
| 6        | 2086-1126/300-000 | 144 |
| 7        | 2086-1127/300-000 | 132 |
| 8        | 2086-1128/300-000 | 108 |
| 9        | 2086-1129/300-000 | 96  |
| 10       | 2086-1130/300-000 | 84  |
| 11       | 2086-1131/300-000 | 84  |
| 12       | 2086-1132/300-000 | 72  |

Dimensions in mm

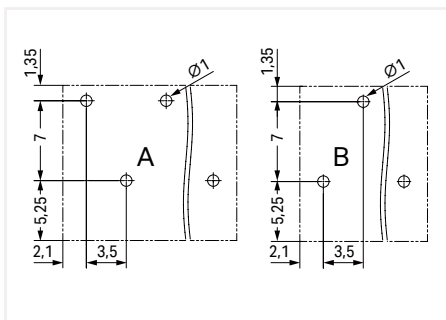


$L = (\text{pole no.} - 1) \times \text{pin spacing} + 4.2 \text{ mm}$

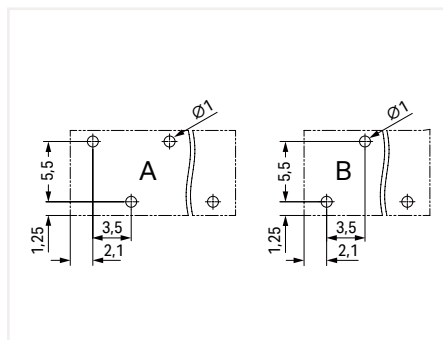
Dimensions in mm



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 4.2 \text{ mm}$



A = Even pole numbers  
B = Odd pole numbers



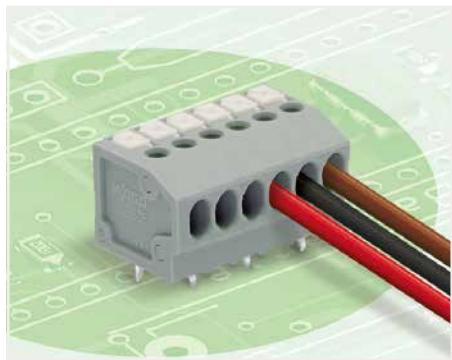
A = Even pole numbers  
B = Odd pole numbers

Variants:

- Solder pin length: 2.4 mm
- Solder pin arrangement over the entire terminal strip (in-line)
- Suitable for automated assembly
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

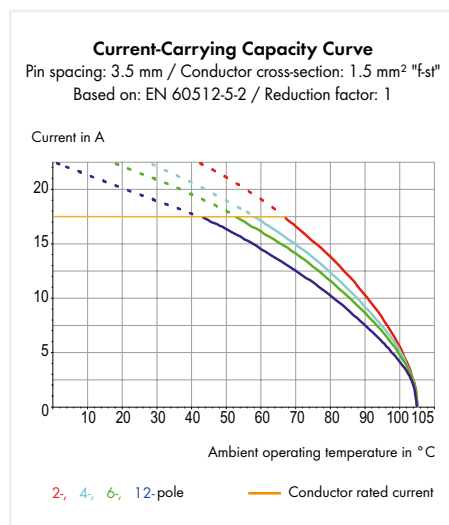
## PCB Terminal Block ▶ 805 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Solder pin arrangement: staggered over the entire terminal strip ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Color: gray



- PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Flush-mount push-buttons that close with minimal force for convenient termination/removal of fine-stranded conductors
- Convenient, tool-free operation
- Versions with/without test slots and spacers
- Versions available with custom internal commoning (factory assembly), e.g., commoning ground conductor

2



### Electrical Data

|                      |                     |        |        |
|----------------------|---------------------|--------|--------|
| Pin spacing          | 3.5 mm / 0.138 inch |        |        |
| Ratings per          | IEC/EN 60664-1      |        |        |
| Overvoltage category | III                 | III    | II     |
| Pollution degree     | 3                   | 2      | 2      |
| Rated voltage        | 250 V               | 320 V  | 630 V  |
| Rated surge voltage  | 4 kV                | 4 kV   | 4 kV   |
| Rated current        | 17.5 A              | 17.5 A | 17.5 A |
| Approvals per        | UL 1059             |        |        |
| Use group            | B                   | C      | D      |
| Rated voltage        | 300 V               | 150    | 300 V  |
| Rated current        | 10 A                | 10 A   | 10 A   |

### Connection Data

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inch            |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG |
| Fine-stranded conductor                           | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>                  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>                  |

### Solder Pin Data

|                       |                        |
|-----------------------|------------------------|
| Solder pin length     | 3.2 mm                 |
| Solder pin dimensions | 0.5 x 0.75 mm          |
| Drilled hole diameter | 1.1 <sup>+0.1</sup> mm |

### Material Data

|                             |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | -60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin-plated                             |



## PCB Terminal Block ▶ 805 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Solder pin arrangement: staggered over the entire terminal strip ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Color: gray

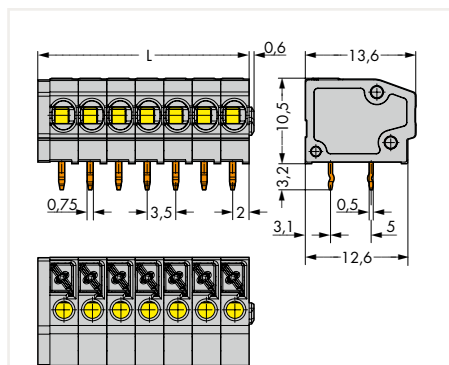
Slots for 2 mm Ø test plug



2

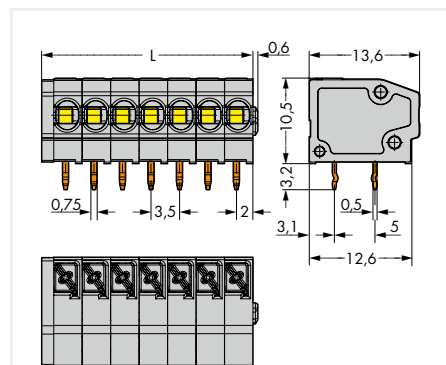
| Pole No. | Item No. | PU (SPU)  | Pole No. | Item No. | PU (SPU)  |
|----------|----------|-----------|----------|----------|-----------|
| 2        | 805-102  | 580 (145) | 2        | 805-302  | 580 (145) |
| 3        | 805-103  | 420 (105) | 3        | 805-303  | 420 (105) |
| 4        | 805-104  | 320 (80)  | 4        | 805-304  | 320 (80)  |
| 5        | 805-105  | 260 (65)  | 5        | 805-305  | 260 (65)  |
| 6        | 805-106  | 220 (55)  | 6        | 805-306  | 220 (55)  |
| 7        | 805-107  | 180 (45)  | 7        | 805-307  | 180 (45)  |
| 8        | 805-108  | 160 (40)  | 8        | 805-308  | 160 (40)  |
| 9        | 805-109  | 140 (35)  | 9        | 805-309  | 140 (35)  |
| 10       | 805-110  | 120 (30)  | 10       | 805-310  | 120 (30)  |
| 11       | 805-111  | 100 (25)  | 11       | 805-311  | 100 (25)  |
| 12       | 805-112  | 100 (25)  | 12       | 805-312  | 100 (25)  |
| 13       | 805-113  | 100 (25)  | 13       | 805-313  | 100 (25)  |
| 14       | 805-114  | 100 (25)  | 14       | 805-314  | 100 (25)  |
| 15       | 805-115  | 80 (20)   | 15       | 805-315  | 80 (20)   |
| 16       | 805-116  | 80 (20)   | 16       | 805-316  | 80 (20)   |
| 17       | 805-117  | 80 (20)   | 17       | 805-317  | 80 (20)   |
| 18       | 805-118  | 60 (15)   | 18       | 805-318  | 60 (15)   |
| 19       | 805-119  | 60 (15)   | 19       | 805-319  | 60 (15)   |
| 20       | 805-120  | 60 (15)   | 20       | 805-320  | 60 (15)   |
| 21       | 805-121  | 60 (15)   | 21       | 805-321  | 60 (15)   |
| 22       | 805-122  | 60 (15)   | 22       | 805-322  | 60 (15)   |
| 23       | 805-123  | 60 (15)   | 23       | 805-323  | 60 (15)   |
| 24       | 805-124  | 40 (10)   | 24       | 805-324  | 40 (10)   |

Dimensions in mm

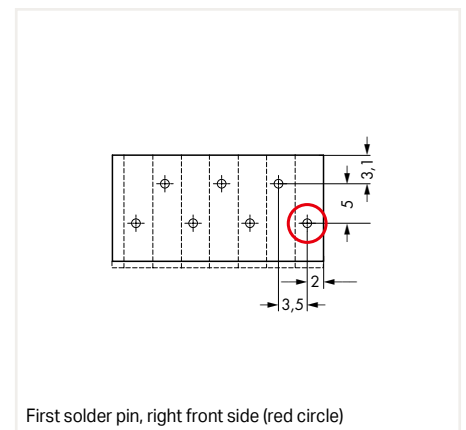


$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

Dimensions in mm



$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$



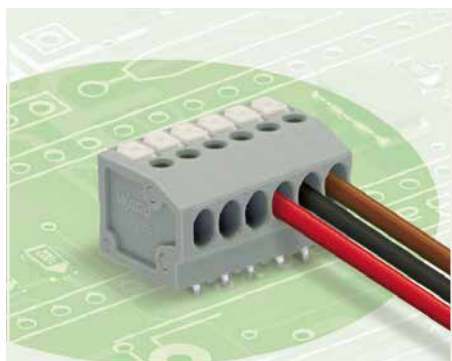
First solder pin, right front side (red circle)

Variants:

- Other pole numbers
- Direct marking
- Mixed-color PCB connector strips
- Other colors: ● blue, ● orange
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

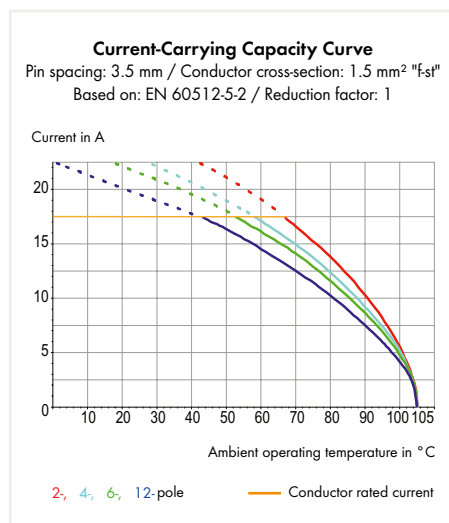
## PCB Terminal Block ▶ 805 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Solder pin arrangement: over the entire terminal strip (in-line) ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Color: gray



- PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Version with in-line solder pins
- Push-in termination of solid and ferruled conductors
- Flush-mount push-buttons that close with minimal force for convenient termination/removal of fine-stranded conductors
- Convenient, tool-free operation
- Versions with/without test slots and spacers
- Versions available with custom internal commoning (factory assembly), e.g., commoning ground conductor

2



| Electrical Data      |                     |        |        |
|----------------------|---------------------|--------|--------|
| Pin spacing          | 3.5 mm / 0.138 inch |        |        |
| Ratings per          | IEC/EN 60664-1      |        |        |
| Overvoltage category | III                 | III    | II     |
| Pollution degree     | 3                   | 2      | 2      |
| Rated voltage        | 160 V               | 160 V  | 320 V  |
| Rated surge voltage  | 2.5 kV              | 2.5 kV | 2.5 kV |
| Rated current        | 17.5 A              | 17.5 A | 17.5 A |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inch            |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG |
| Fine-stranded conductor                           | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>                  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>                  |

| Solder Pin Data       |                        |
|-----------------------|------------------------|
| Solder pin length     | 3.2 mm                 |
| Solder pin dimensions | 0.5 x 0.75 mm          |
| Drilled hole diameter | 1.1 <sup>+0.1</sup> mm |

| Material Data               |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | -60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | Tin-plated                             |

## PCB Terminal Block ▶ 805 Series

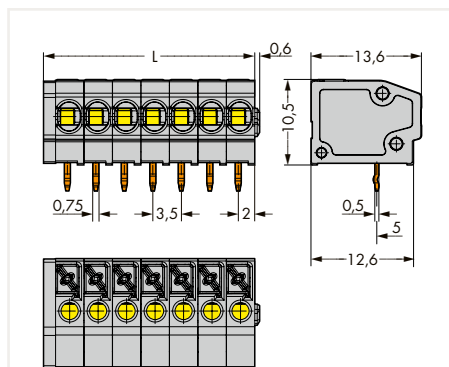
Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶ Solder pin arrangement: over the entire terminal strip (in-line) ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Color: gray

Slots for 2 mm Ø test plug



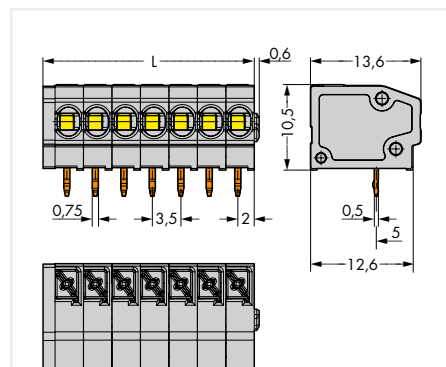
| Pole No. | Item No. | PU        | Pole No. | Item No. | PU        |
|----------|----------|-----------|----------|----------|-----------|
| 2        | 805-152  | 600 (150) | 2        | 805-352  | 600 (150) |
| 3        | 805-153  | 420 (105) | 3        | 805-353  | 420 (105) |
| 4        | 805-154  | 300 (75)  | 4        | 805-354  | 300 (75)  |
| 5        | 805-155  | 260 (65)  | 5        | 805-355  | 260 (65)  |
| 6        | 805-156  | 220 (55)  | 6        | 805-356  | 220 (55)  |
| 7        | 805-157  | 180 (45)  | 7        | 805-357  | 180 (45)  |
| 8        | 805-158  | 160 (40)  | 8        | 805-358  | 160 (40)  |
| 9        | 805-159  | 140 (35)  | 9        | 805-359  | 140 (35)  |
| 10       | 805-160  | 120 (30)  | 10       | 805-360  | 120 (30)  |
| 11       | 805-161  | 100 (25)  | 11       | 805-361  | 100 (25)  |
| 12       | 805-162  | 100 (25)  | 12       | 805-362  | 100 (25)  |
| 13       | 805-163  | 100 (25)  | 13       | 805-363  | 100 (25)  |
| 14       | 805-164  | 100 (25)  | 14       | 805-364  | 100 (25)  |
| 15       | 805-165  | 80 (20)   | 15       | 805-365  | 80 (20)   |
| 16       | 805-166  | 80 (20)   | 16       | 805-366  | 80 (20)   |
| 17       | 805-167  | 80 (20)   | 17       | 805-367  | 80 (20)   |
| 18       | 805-168  | 60 (15)   | 18       | 805-368  | 60 (15)   |
| 19       | 805-169  | 60 (15)   | 19       | 805-369  | 60 (15)   |
| 20       | 805-170  | 60 (15)   | 20       | 805-370  | 60 (15)   |
| 21       | 805-171  | 60 (15)   | 21       | 805-371  | 60 (15)   |
| 22       | 805-172  | 60 (15)   | 22       | 805-372  | 60 (15)   |
| 23       | 805-173  | 60 (15)   | 23       | 805-373  | 60 (15)   |
| 24       | 805-174  | 40 (10)   | 24       | 805-374  | 40 (10)   |

Dimensions in mm



$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

Dimensions in mm



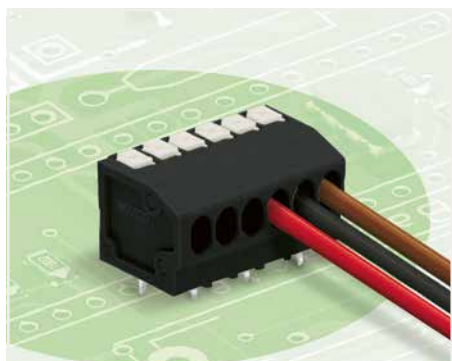
$L = (\text{pole no.} \times \text{pin spacing}) + 1.5 \text{ mm}$

Variants:

- Other pole numbers
- Direct marking
- Mixed-color PCB connector strips
- Other colors: ● blue, ● orange
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

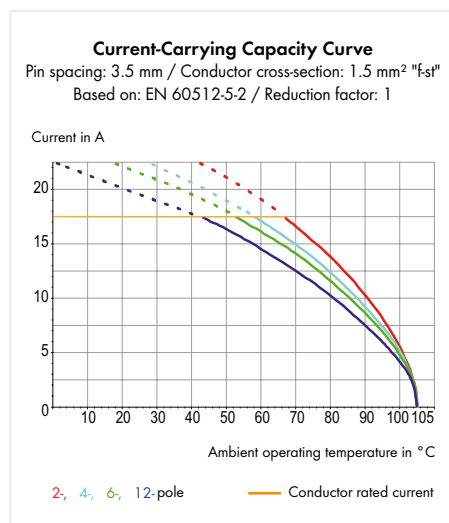
**THR PCB Terminal Block ▶ 805 Series**

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ Terminal strip ▶

Pin spacing: 3.5 mm / 0.138 inch ▶ 1.5 mm<sup>2</sup> ▶ Color: black

- THR PCB terminal strips with Push-in CAGE CLAMP® connection and push-button actuation
- Push-in termination of solid and ferruled conductors
- Flush-mount push-buttons that close with minimal force for convenient termination/removal of fine-stranded conductors
- Convenient, tool-free operation

2



| Electrical Data      |                     |        |        |
|----------------------|---------------------|--------|--------|
| Pin spacing          | 3.5 mm / 0.138 inch |        |        |
| Ratings per          | IEC/EN 60664-1      |        |        |
| Overvoltage category | III                 | III    | II     |
| Pollution degree     | 3                   | 2      | 2      |
| Rated voltage        | 200 V               | 320 V  | 320 V  |
| Rated surge voltage  | 4 kV                | 4 kV   | 4 kV   |
| Rated current        | 17.5 A              | 17.5 A | 17.5 A |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inch            |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG |
| Fine-stranded conductor                           | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>                  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>                  |

| Solder Pin Data       |                        |
|-----------------------|------------------------|
| Solder pin length     | 2.2 mm                 |
| Solder pin dimensions | 0.5 x 0.75 mm          |
| Drilled hole diameter | 1.1 <sup>+0.1</sup> mm |

| Material Data               |  |
|-----------------------------|--|
| Material group              | III a                                  |
| Insulation material         | Polyamide 46 (PA 46)                   |
| Flammability class per UL94 | V2                                     |
| Limit temperature range     | -60 ... +115 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin-plated                             |

### THR PCB Terminal Block ▶ 805 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ Terminal strip ▶

Pin spacing: 3.5 mm / 0.138 inch ▶ 1.5 mm<sup>2</sup> ▶ Color: black

Variants with additional suction pad in tape-and-reel packaging per IEC 60286-3; 330 mm reel diameter; 160 units/reel

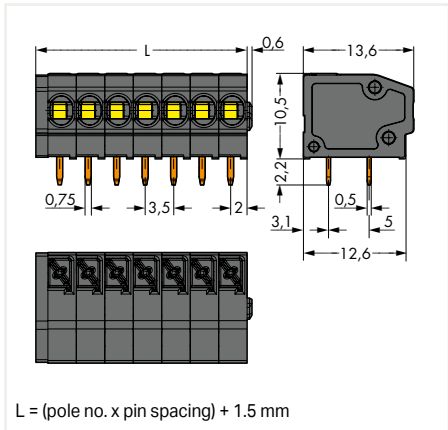


2

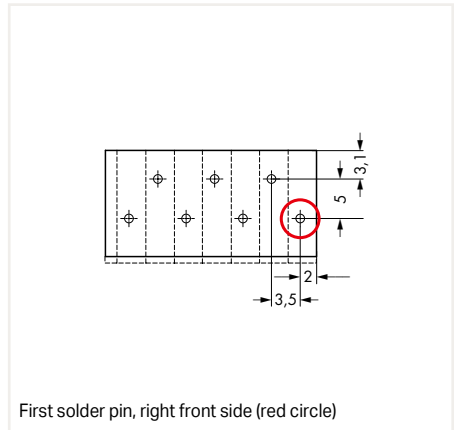
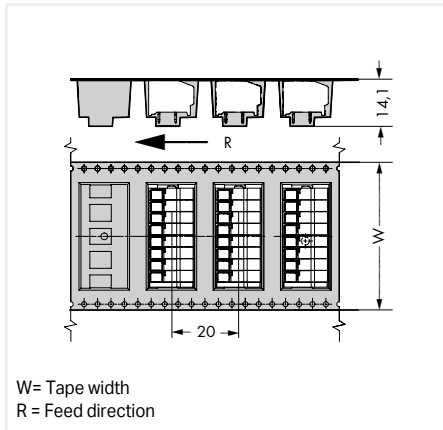
| Pole No. | Item No.        | PU        |
|----------|-----------------|-----------|
| 2        | 805-302/200-604 | 600 (150) |
| 3        | 805-303/200-604 | 420 (105) |
| 4        | 805-304/200-604 | 300 (75)  |
| 5        | 805-305/200-604 | 260 (65)  |
| 6        | 805-306/200-604 | 220 (55)  |
| 7        | 805-307/200-604 | 180 (45)  |
| 8        | 805-308/200-604 | 160 (40)  |

| Pole No. | Item No.                | W (mm) |
|----------|-------------------------|--------|
| 2        | 805-302/200-604/997-404 | 24     |
| 3        | 805-303/200-604/997-405 | 32     |
| 4        | 805-304/200-604/997-405 | 32     |
| 5        | 805-305/200-604/997-405 | 32     |
| 6        | 805-306/200-604/997-406 | 44     |
| 7        | 805-307/200-604/997-406 | 44     |
| 8        | 805-308/200-604/997-406 | 44     |

Dimensions in mm



Dimensions in mm



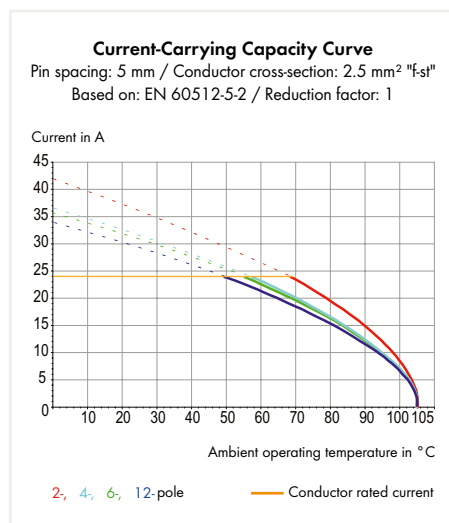
## PCB Terminal Block ▶ 804 Series

Push-in CAGE CLAMP® ▶ 2.5 mm<sup>2</sup> ▶ Actuation type: push-button ▶ Color: gray



- PCB terminal strips with push-buttons and Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- A large conductor entry accommodates conductors with a cross-section up to 12 AWG with an insulation diameter up to 4.2 mm
- Terminal strips with spacers to increase pin spacing
- Versions available with custom internal commoning (factory assembly), e.g., commoning ground conductor

2



| Electrical Data      |                   |       |       |                     |       |       |
|----------------------|-------------------|-------|-------|---------------------|-------|-------|
| Pin spacing          | 5 mm / 0.197 inch |       |       | 7.5 mm / 0.295 inch |       |       |
| Ratings per          | IEC/EN 60664-1    |       |       | IEC/EN 60664-1      |       |       |
| Overvoltage category | III               | III   | II    | III                 | III   | II    |
| Pollution degree     | 3                 | 2     | 2     | 3                   | 2     | 2     |
| Rated voltage        | 250 V             | 320 V | 630 V | 320 V               | 320 V | 630 V |
| Rated surge voltage  | 4 kV              | 4 kV  | 4 kV  | 4 kV                | 4 kV  | 4 kV  |
| Rated current        | 24 A              | 24 A  | 24 A  | 24 A                | 24 A  | 24 A  |

|               |         |   |       |         |   |       |
|---------------|---------|---|-------|---------|---|-------|
| Approvals per | UL 1059 |   |       | UL 1059 |   |       |
| Use group     | B       | C | D     | B       | C | D     |
| Rated voltage | 300 V   | – | 300 V | 300 V   | – | 300 V |
| Rated current | 10 A    | – | 10 A  | 10 A    | – | 10 A  |

|               |       |   |       |       |   |       |
|---------------|-------|---|-------|-------|---|-------|
| Approvals per | CSA   |   |       | CSA   |   |       |
| Use group     | B     | C | D     | B     | C | D     |
| Rated voltage | 300 V | – | 300 V | 300 V | – | 300 V |
| Rated current | 10 A  | – | 10 A  | 10 A  | – | 10 A  |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 10 ... 11 mm / 0.39 ... 0.43 inch            |
| Conductor entry angle to the PCB                  | 0°   |
| Conductor cross-sections                          |  |
| Solid conductor                                   | 0.25 ... 2.5 mm <sup>2</sup> / 20 ... 12 AWG |
| Fine-stranded conductor                           | 0.25 ... 2.5 mm <sup>2</sup> / 20 ... 12 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1.5 mm <sup>2</sup>                 |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm <sup>2</sup>                 |

| Solder Pin Data       |                        |
|-----------------------|------------------------|
| Solder pin length     | 3.6 mm                 |
| Solder pin dimensions | 0.8 x 0.6 mm           |
| Drilled hole diameter | 1.1 <sup>+0.1</sup> mm |

| Material Data               |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | –60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | Tin-plated                             |



## PCB Terminal Block ▶ 804 Series

Push-in CAGE CLAMP® ▶ 2.5 mm<sup>2</sup> ▶ Actuation type: push-button ▶ Color: gray

Pin spacing: 2.5 mm / 0.098 inch

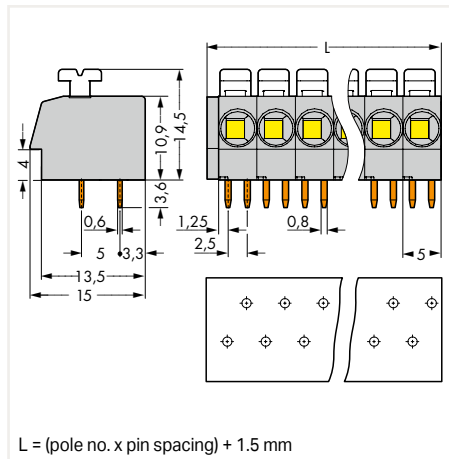
Pin spacing: 2.54 mm / 0.1 inch



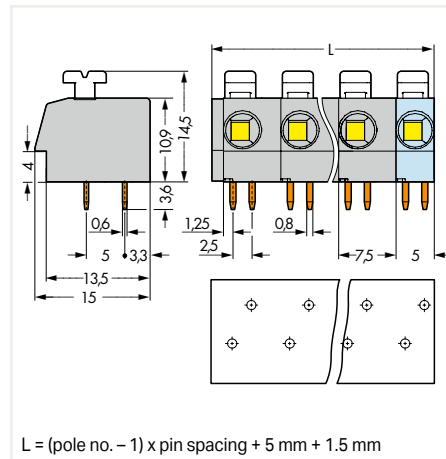
| Pole No. | Item No. | PU        |
|----------|----------|-----------|
| 2        | 804-102  | 420 (105) |
| 3        | 804-103  | 300 (75)  |
| 4        | 804-104  | 220 (55)  |
| 5        | 804-105  | 180 (45)  |
| 6        | 804-106  | 140 (35)  |
| 7        | 804-107  | 120 (30)  |
| 8        | 804-108  | 100 (25)  |
| 9        | 804-109  | 100 (25)  |
| 10       | 804-110  | 80 (20)   |
| 11       | 804-111  | 80 (20)   |
| 12       | 804-112  | 80 (20)   |
| 13       | 804-113  | 60 (15)   |
| 14       | 804-114  | 60 (15)   |
| 15       | 804-115  | 60 (15)   |
| 16       | 804-116  | 60 (15)   |

| Pole No. | Item No. | PU       |
|----------|----------|----------|
| 2        | 804-302  | 340 (85) |
| 3        | 804-303  | 220 (55) |
| 4        | 804-304  | 160 (40) |
| 5        | 804-305  | 120 (30) |
| 6        | 804-306  | 100 (25) |
| 7        | 804-307  | 80 (20)  |
| 8        | 804-308  | 80 (20)  |
| 9        | 804-309  | 60 (15)  |
| 10       | 804-310  | 60 (15)  |
| 11       | 804-311  | 60 (15)  |
| 12       | 804-312  | 40 (10)  |

Dimensions in mm

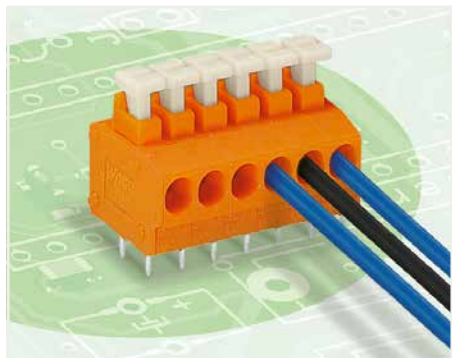


Dimensions in mm



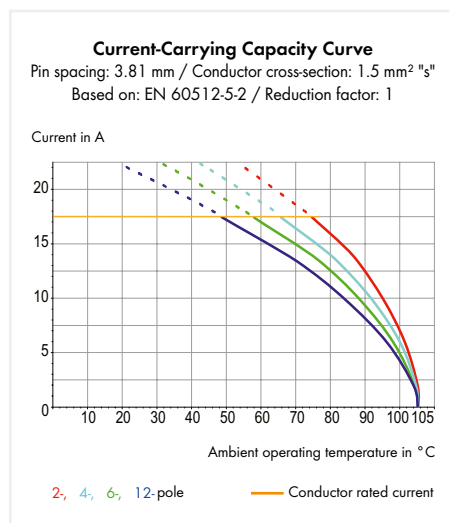
### Variants:

- Other pole numbers
- Direct marking
- 10 mm pin spacing version with spacers
- Other colors: ● red, ● orange, ● light green, ● pink, ● blue (● blue suitable for Ex i applications)
- Mixed-color PCB connector strips
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

**Modular PCB Terminal Block ▶ 235 Series****PUSH WIRE® ▶ Actuation type: operating tool ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 3.81 mm / 0.15 inch****▶ Color: orange**

- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons

2



| Electrical Data                                   |   |        |        |
|---|---|--------|--------|
| Pin spacing                                       | 3.81 mm / 0.15 inch   |        |        |
| Ratings per                                       | IEC/EN 60664-1  |        |        |
| Overvoltage category                              | III   | III    | II     |
| Pollution degree                                  | 3   | 2      | 2      |
| Rated voltage                                     | 200 V   | 320 V  | 500 V  |
| Rated surge voltage                               | 4 kV  | 4 kV   | 4 kV   |
| Rated current                                     | 17.5 A  | 17.5 A | 17.5 A |
| Approvals per                                     | UL 1059   |        |        |
| Use group   | B   | C      | D      |
| Rated voltage                                     | 300 V   | –      | 300 V  |
| Rated current                                     | 10 A  | –      | 10 A   |
| Approvals per                                     | CSA   |        |        |
| Use group   | B   | C      | D      |
| Rated voltage                                     | 300 V   | –      | –      |
| Rated current                                     | 10 A  | –      | –      |
| Connection Data                                   |   |        |        |
| Connection technology                             | Push-in CAGE CLAMP®   |        |        |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inch                                    |        |        |
| Conductor entry angle to the PCB                  | 0°  |        |        |
| Conductor cross-sections                          |   |        |        |
| Solid conductor                                   | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG                         |        |        |
| Fine-stranded conductor                           | 0.75 ... 1.5 mm <sup>2</sup> / 18 ... 16 AWG (I <sub>max</sub> 4 A) |        |        |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>  |        |        |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>  |        |        |
| Solder Pin Data                                   |   |        |        |
| Solder pin length                                 | 3.6 mm  |        |        |
| Solder pin dimensions                             | 0.4 x 0.8 mm  |        |        |
| Drilled hole diameter                             | 1 <sup>+0.1</sup> mm  |        |        |
| Material Data                                     |   |        |        |
| Material group                                    | I   |        |        |
| Insulation material                               | Polyamide 66 (PA 66)  |        |        |
| Flammability class per UL94                       | V0  |        |        |
| Limit temperature range                           | –60 ... +105 °C   |        |        |
| Clamping spring material                          | Chrome nickel spring steel (CrNi)                                   |        |        |
| Contact material                                  | Electrolytic copper (E <sub>Cu</sub> )                              |        |        |
| Contact plating                                   | Tin-plated  |        |        |

## Modular PCB Terminal Block ▶ 235 Series

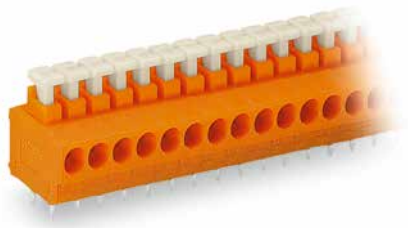
PUSH WIRE® ▶ Actuation type: operating tool ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 3.81 mm / 0.15 inch

▶ Color: orange

Modular terminal block with push-button

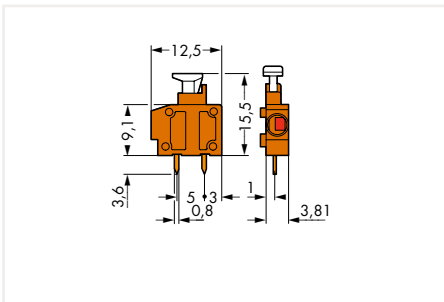


Terminal strip with push-buttons

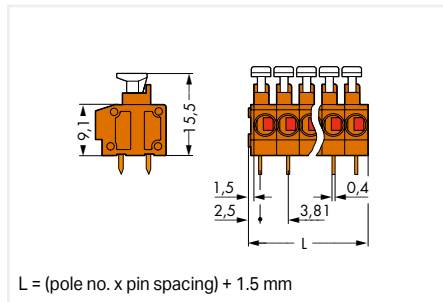


| Color       | Item No. | PU        | Pole No. | Item No. | PU        |
|-------------|----------|-----------|----------|----------|-----------|
| orange      | 235-101  | 800 (100) | 2        | 235-102  | 520 (130) |
| red         | 235-770  | 800 (100) | 3        | 235-103  | 360 (90)  |
| gray        | 235-771  | 800 (100) | 4        | 235-104  | 280 (70)  |
| dark gray   | 235-772  | 800 (100) | 5        | 235-105  | 220 (55)  |
| blue        | 235-774  | 800 (100) | 6        | 235-106  | 180 (45)  |
| white       | 235-775  | 800 (100) | 7        | 235-107  | 160 (40)  |
| yellow      | 235-776  | 800 (100) | 8        | 235-108  | 140 (35)  |
| light green | 235-777  | 800 (100) | 9        | 235-109  | 120 (30)  |
| black       | 235-778  | 800 (100) | 10       | 235-110  | 120 (30)  |

Dimensions in mm



Dimensions in mm



### Accessories, for all products on this page



| End plates for modular terminal blocks; snap-on type; 1 mm thick |          |     |
|--|----------|-----|
| Color  | Item No. | PU  |
| orange   | 235-600  | 100 |
| red  | 235-800  | 100 |
| gray   | 235-100  | 100 |
| dark gray  | 235-200  | 100 |
| blue   | 235-400  | 100 |
| white  | 235-850  | 100 |
| yellow   | 235-550  | 100 |
| light green  | 235-700  | 100 |
| black  | 235-500  | 100 |



| Spacer, doubles 3.81 mm (0.15 inch) pin spacing |          |     |
|---|----------|-----|
| Color   | Item No. | PU  |
| orange  | 235-316  | 100 |
|   |          |     |
|   |          |     |
|   |          |     |
|   |          |     |
|   |          |     |
|   |          |     |
|   |          |     |

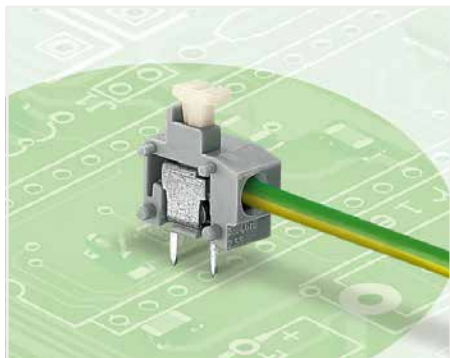
### Variants:

- Other pole numbers
- Direct marking
- Other colors for terminal strips: red, gray, dark gray, blue, white, yellow, light green, black
- Mixed-color PCB connector strips
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

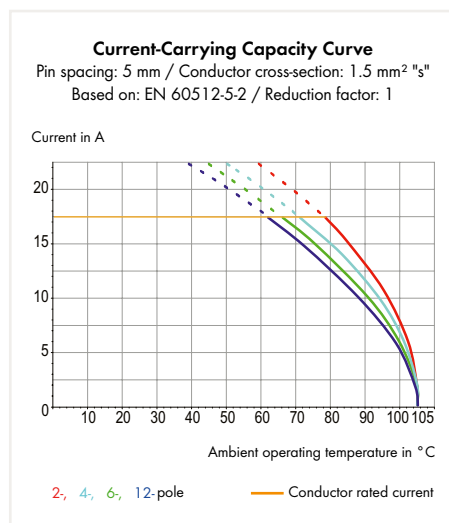
## Modular PCB Terminal Block ▶ 235 Series

### Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup>

2



- Modular PCB terminal blocks with push-buttons for custom terminal strip assemblies
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- For two-conductor versions, visit [www.wago.com](http://www.wago.com).



| Electrical Data      |                      |        |        |                        |        |        |                        |        |        |
|----------------------|----------------------|--------|--------|------------------------|--------|--------|------------------------|--------|--------|
| Pin spacing          | 5/5.08 mm / 0.2 inch |        |        | 7.5/7.62 mm / 0.3 inch |        |        | 10/10.16 mm / 0.4 inch |        |        |
| Ratings per          | IEC/EN 60664-1       |        |        | IEC/EN 60664-1         |        |        | IEC/EN 60664-1         |        |        |
| Overvoltage category | III                  | III    | II     | III                    | III    | II     | III                    | III    | II     |
| Pollution degree     | 3                    | 2      | 2      | 3                      | 2      | 2      | 3                      | 2      | 2      |
| Rated voltage        | 250 V                | 320 V  | 630 V  | 400 V                  | 630 V  | 1000 V | 630 V                  | 1000 V | 1000 V |
| Rated surge voltage  | 4 kV                 | 4 kV   | 4 kV   | 6 kV                   | 6 kV   | 6 kV   | 8 kV                   | 8 kV   | 8 kV   |
| Rated current        | 17.5 A               | 17.5 A | 17.5 A | 17.5 A                 | 17.5 A | 17.5 A | 17.5 A                 | 17.5 A | 17.5 A |

|               |         |   |       |         |   |       |         |   |       |
|---------------|---------|---|-------|---------|---|-------|---------|---|-------|
| Approvals per | UL 1059 |   |       | UL 1059 |   |       | UL 1059 |   |       |
| Use group     | B       | C | D     | B       | C | D     | B       | C | D     |
| Rated voltage | 300 V   | – | 300 V | 300 V   | – | 300 V | 300 V   | – | 300 V |
| Rated current | 10 A    | – | 10 A  | 10 A    | – | 10 A  | 10 A    | – | 10 A  |

|               |       |   |   |       |   |   |       |   |   |
|---------------|-------|---|---|-------|---|---|-------|---|---|
| Approvals per | CSA   |   |   | CSA   |   |   | CSA   |   |   |
| Use group     | B     | C | D | B     | C | D | B     | C | D |
| Rated voltage | 300 V | – | – | 300 V | – | – | 300 V | – | – |
| Rated current | 15 A  | – | – | 15 A  | – | – | 15 A  | – | – |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                                 |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inch                    |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 1.5 mm <sup>2</sup> / 20 ... 14 AWG         |
| Fine-stranded conductor                           | 0.25 ... 0.5 mm <sup>2</sup> (I <sub>max</sub> 2 A) |
| Fine-stranded conductor                           | 0.75 ... 1.5 mm <sup>2</sup> (I <sub>max</sub> 6 A) |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>                          |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>                          |

| Solder Pin Data       |                      |
|-----------------------|----------------------|
| Solder pin length     | 3.6 mm               |
| Solder pin dimensions | 0.4 x 0.8 mm         |
| Drilled hole diameter | 1 <sup>+0.1</sup> mm |

| Material Data               |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | –60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin-plated                             |

# Modular PCB Terminal Block ▶ 235 Series

## Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup>

Pin spacing: 5/5.08 mm / 0.2 inch

Pin spacing: 7.5/7.62 mm / 0.3 inch

Pin spacing: 10/10.16 mm / 0.4 inch



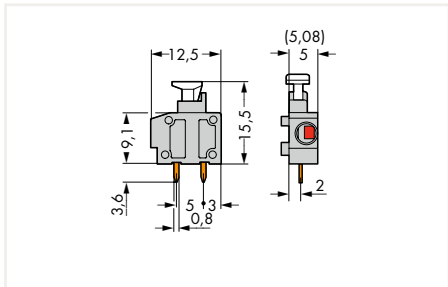
2

| Color         | Item No.        | PU        |
|---------------|-----------------|-----------|
| ○ gray        | 235-401/331-000 | 800 (100) |
| ● red         | 235-740/331-000 | 800 (100) |
| ● yellow      | 235-741/331-000 | 800 (100) |
| ● dark gray   | 235-742/331-000 | 800 (100) |
| ○ light gray  | 235-743/331-000 | 800 (100) |
| ● blue        | 235-744/331-000 | 800 (100) |
| ○ white       | 235-745/331-000 | 800 (100) |
| ● orange      | 235-746/331-000 | 800 (100) |
| ● light green | 235-747/331-000 | 800 (100) |
| ● black       | 235-748/331-000 | 800 (100) |
| ● violet      | 235-749/331-000 | 800 (100) |

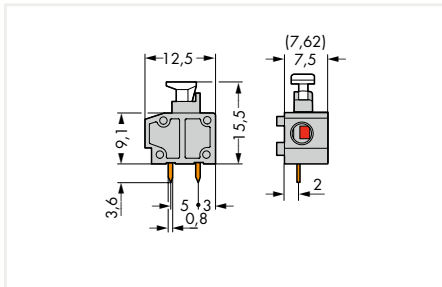
| Color         | Item No.        | PU        |
|---------------|-----------------|-----------|
| ○ gray        | 235-501/331-000 | 600 (100) |
| ● dark gray   | 235-752/331-000 | 600 (100) |
| ○ light gray  | 235-753/331-000 | 600 (100) |
| ● blue*       | 235-754/331-000 | 600 (100) |
| ● orange      | 235-756/331-000 | 600 (100) |
| ● light green | 235-757/331-000 | 600 (100) |
| ● black       | 235-758/331-000 | 600 (100) |

| Color         | Item No.        | PU        |
|---------------|-----------------|-----------|
| ○ gray        | 235-801/331-000 | 400 (100) |
| ● dark gray   | 235-762/331-000 | 400 (100) |
| ○ light gray  | 235-763/331-000 | 400 (100) |
| ● blue*       | 235-764/331-000 | 400 (100) |
| ● orange      | 235-766/331-000 | 400 (100) |
| ● light green | 235-767/331-000 | 400 (100) |
| ● black       | 235-768/331-000 | 400 (100) |

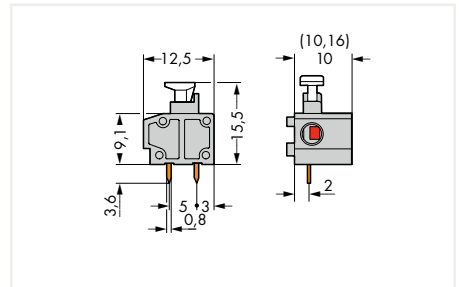
Dimensions in mm



Dimensions in mm



Dimensions in mm



\*Suitable for Ex i applications

Accessories, for all products on this page



Intermediate plate; extends pin spacing; Width: 5 mm / 0.197 inch

| Color  | Item No. | PU  |
|--------|----------|-----|
| ○ gray | 235-701  | 100 |

End plates for modular terminal blocks; snap-on type; 1 mm thick

| Color         | Item No. | PU  |
|---------------|----------|-----|
| ○ gray        | 235-100  | 100 |
| ● dark gray   | 235-200  | 100 |
| ○ light gray  | 235-300  | 100 |
| ● blue        | 235-400  | 100 |
| ● black       | 235-500  | 100 |
| ● yellow      | 235-550  | 100 |
| ● orange      | 235-600  | 100 |
| ● violet      | 235-650  | 100 |
| ● light green | 235-700  | 100 |
| ● red         | 235-800  | 100 |
| ○ white       | 235-850  | 100 |

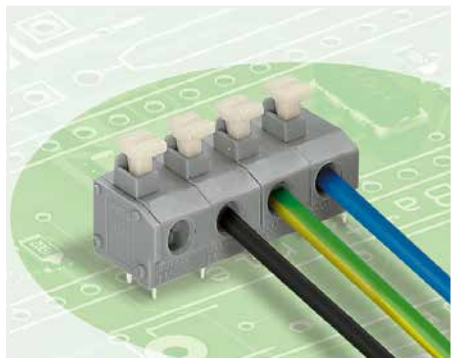
Variants:

- Other colors
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## PCB Terminal Block ▶ 235 Series

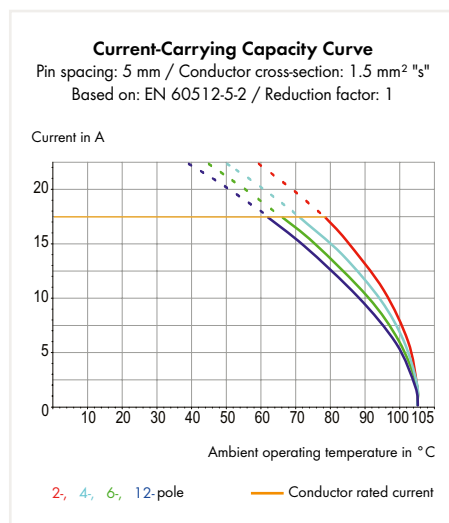
Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶

Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▶ Color: gray



- PCB terminal strips with push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart

2



### Electrical Data

|                      |                      |        |        |
|----------------------|----------------------|--------|--------|
| Pin spacing          | 5/5.08 mm / 0.2 inch |        |        |
| Ratings per          | 60664-1              |        |        |
| Overtoltage category | III                  | III    | II     |
| Pollution degree     | 3                    | 2      | 2      |
| Rated voltage        | 250 V                | 320 V  | 630 V  |
| Rated surge voltage  | 4 kV                 | 4 kV   | 4 kV   |
| Rated current        | 17.5 A               | 17.5 A | 17.5 A |
| Approvals per        | UL 1059              |        |        |
| Use group            | B                    | C      | D      |
| Rated voltage        | 300 V                | –      | 300 V  |
| Rated current        | 10 A                 | –      | 10 A   |
| Approvals per        | CSA                  |        |        |
| Use group            | B                    | C      | D      |
| Rated voltage        | 300 V                | –      | –      |
| Rated current        | 15 A                 | –      | –      |

### Connection Data

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                         |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inch            |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 1.5 mm <sup>2</sup> / 20 ... 14 AWG |
| Fine-stranded conductor                           | 0.25 ... 0.5 mm <sup>2</sup> (Imax 2 A)     |
| Fine-stranded conductor                           | 0.75 ... 1.5 mm <sup>2</sup> (Imax 6 A)     |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>                  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>                  |

### Solder Pin Data

|                       |                      |
|-----------------------|----------------------|
| Solder pin length     | 3.6 mm               |
| Solder pin dimensions | 0.4 x 0.8 mm         |
| Drilled hole diameter | 1 <sup>+0.1</sup> mm |

### Material Data

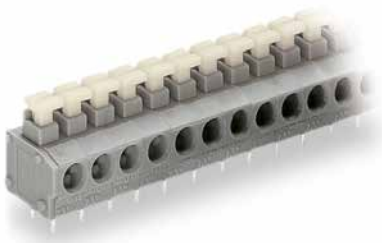
|                             |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | –60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin-plated                             |



## PCB Terminal Block ▶ 235 Series

Push-in CAGE CLAMP® ▶ Actuation type: push-button ▶ 1.5 mm<sup>2</sup> ▶

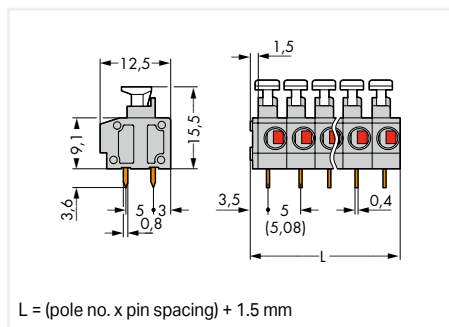
Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▶ Color: gray



2

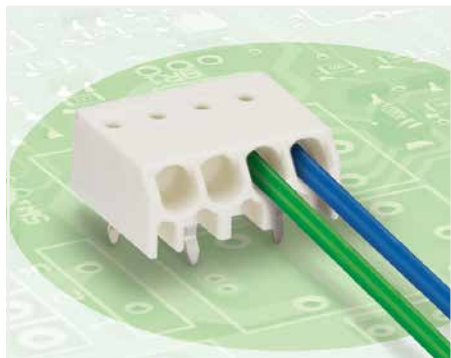
| Pole No. | Item No.        | PU        |
|----------|-----------------|-----------|
| 2        | 235-402/331-000 | 420 (105) |
| 3        | 235-403/331-000 | 280 (70)  |
| 4        | 235-404/331-000 | 220 (55)  |
| 5        | 235-405/331-000 | 180 (45)  |
| 6        | 235-406/331-000 | 140 (35)  |
| 7        | 235-407/331-000 | 120 (30)  |
| 8        | 235-408/331-000 | 100 (25)  |
| 9        | 235-409/331-000 | 100 (25)  |
| 10       | 235-410/331-000 | 80 (20)   |
| 12       | 235-412/331-000 | 60 (15)   |

Dimensions in mm



### Variants:

- Other pole numbers
- Direct marking
- Other colors: ● red, ○ light gray, ● dark gray, ● blue, ○ white, ● yellow, ● light green, ● black, ● orange, ● violet
- Mixed-color PCB connector strips
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

**PCB Terminal Block ▶ 744 Series****PUSH WIRE® ▶ Actuation type: operating tool ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 3.5 mm / 0.138 inch****▶ Color: white**

- PCB terminal blocks with PUSH WIRE® connection
- Push-in termination of solid conductors – low insertion forces
- Just 6.6 mm tall
- Conductor removal via disconnection tool or by twist and pull

2

| Electrical Data      |                     |       |       |
|----------------------|---------------------|-------|-------|
| Pin spacing          | 3.5 mm / 0.138 inch |       |       |
| Ratings per          | IEC/EN 60664-1      |       |       |
| Overvoltage category | III                 | III   | II    |
| Pollution degree     | 3                   | 2     | 2     |
| Rated voltage        | 250 V               | 320 V | 630 V |
| Rated surge voltage  | 4 kV                | 4 kV  | 4 kV  |
| Rated current        | 2 A                 | 2 A   | 2 A   |
| Approvals per        | UL 1059             |       |       |
| Use group            | B                   | C     | D     |
| Rated voltage        | 300 V               | -     | 300 V |
| Rated current        | 2 A                 | -     | 2 A   |

| Connection Data                  |   |
|----------------------------------|---|
| Connection technology            | PUSH WIRE®                                  |
| Strip length                     | 8 ... 9 mm / 0.31 ... 0.35 inch             |
| Conductor entry angle to the PCB | 0°  |
| Conductor cross-sections         |   |
| Solid conductor                  | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |

| Solder Pin Data       |                        |
|-----------------------|------------------------|
| Solder pin length     | 3.5 mm                 |
| Solder pin dimensions | 0.35 x 0.9 mm          |
| Drilled hole diameter | 1.1 <sup>-0.1</sup> mm |

| Material Data               |                      |
|-----------------------------|----------------------|
| Material group              | I                    |
| Insulation material         | Polyamide 66 (PA 66) |
| Flammability class per UL94 | V0                   |
| Limit temperature range     | -60 ... +105 °C      |
| Contact material            | Copper alloy         |
| Contact plating             | Tin-plated           |

## PCB Terminal Block ▶ 744 Series

PUSH WIRE® ▶ Actuation type: operating tool ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 3.5 mm / 0.138 inch

▶ Color: white



2

| Pole No. | Item No. | PU   |
|----------|----------|------|
| 2        | 744-392  | 1500 |
| 3        | 744-303  | 1000 |
| 4        | 744-304  | 800  |
| 6        | 744-306  | 500  |
| 7        | 744-307  | 300  |
| 8        | 744-308  | 300  |
| 10       | 744-310  | 200  |

Dimensions in mm

Two-pole version with additional anti-rotating pin



Inserting a conductor via push-in termination.

For 3 poles and more,  $L = (\text{pole no.} \times \text{pin spacing}) + 0.9 \text{ mm}$   
 First solder pin, right front side (red circle)

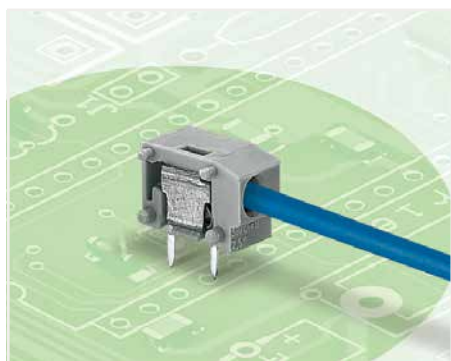


Removing a conductor via 1.0 mm Ø disconnection tool; (Item No. 206-841).

WAGO's 744 Series Terminal Blocks are also available with shortened solder pins (2.4 mm) for ultra-flat LED drivers (suffix/364-000, e.g., 744-303/364-000).

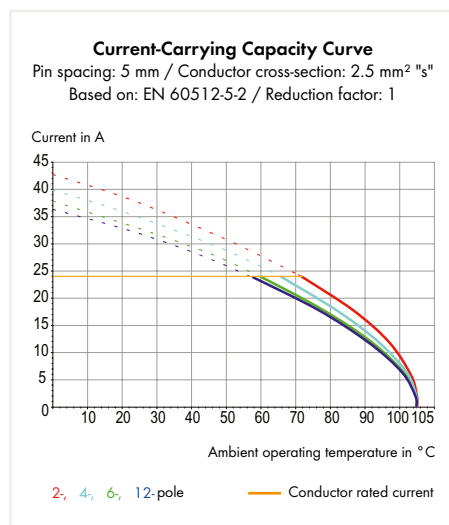
## Modular PCB Terminal Block ▶ 235 Series

### PUSH WIRE® ▶ Actuation type: operating tool ▶ 2.5 mm<sup>2</sup>



- Low-profile modular PCB terminal blocks with PUSH WIRE® connection for custom terminal strip assemblies
- Push-in termination of solid conductors
- Double solder pins for high mechanical stability
- Conductor removal via (2.5 x 0.4) mm screwdriver
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart
- For two-conductor versions, visit [www.wago.com](http://www.wago.com).

2



#### Electrical Data

| Pin spacing          | 5/5.08 mm / 0.2 inch |       |       | 7.5/7.62 mm / 0.3 inch |       |        | 10/10.16 mm / 0.4 inch |        |        |
|----------------------|----------------------|-------|-------|------------------------|-------|--------|------------------------|--------|--------|
| Ratings per          | IEC/EN 60664-1       |       |       | IEC/EN 60664-1         |       |        | IEC/EN 60664-1         |        |        |
| Overvoltage category | III                  | III   | II    | III                    | III   | II     | III                    | III    | II     |
| Pollution degree     | 3                    | 2     | 2     | 3                      | 2     | 2      | 3                      | 2      | 2      |
| Rated voltage        | 250 V                | 320 V | 630 V | 400 V                  | 630 V | 1000 V | 630 V                  | 1000 V | 1000 V |
| Rated surge voltage  | 4 kV                 | 4 kV  | 4 kV  | 6 kV                   | 6 kV  | 6 kV   | 8 kV                   | 8 kV   | 8 kV   |
| Rated current        | 24 A                 | 24 A  | 24 A  | 24 A                   | 24 A  | 24 A   | 24 A                   | 24 A   | 24 A   |

| Approvals per | UL 1059 |   |       | UL 1059 |   |       | UL 1059 |   |       |
|---------------|---------|---|-------|---------|---|-------|---------|---|-------|
| Use group     | B       | C | D     | B       | C | D     | B       | C | D     |
| Rated voltage | 300 V   | – | 300 V | 300 V   | – | 300 V | 300 V   | – | 300 V |
| Rated current | 10 A    | – | 10 A  | 10 A    | – | 10 A  | 10 A    | – | 10 A  |

| Approvals per | CSA   |   |   | CSA   |   |   | CSA   |   |   |
|---------------|-------|---|---|-------|---|---|-------|---|---|
| Use group     | B     | C | D | B     | C | D | B     | C | D |
| Rated voltage | 300 V | – | – | 300 V | – | – | 300 V | – | – |
| Rated current | 15 A  | – | – | 15 A  | – | – | 15 A  | – | – |

#### Connection Data

|   |   |
|---|---|
| Connection technology                             | PUSH WIRE®                                  |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inch            |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>                  |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>                  |

#### Solder Pin Data

|                       |                      |
|-----------------------|----------------------|
| Solder pin length     | 3.6 mm               |
| Solder pin dimensions | 0.4 x 0.8 mm         |
| Drilled hole diameter | 1 <sup>+0.1</sup> mm |

#### Material Data

|                             |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | –60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>CU</sub> ) |
| Contact plating             | Tin-plated                             |

# Modular PCB Terminal Block ▶ 235 Series

## PUSH WIRE® ▶ Actuation type: operating tool ▶ 2.5 mm<sup>2</sup>

Pin spacing: 5/5.08 mm / 0.2 inch

Pin spacing: 7.5/7.62 mm / 0.3 inch

Pin spacing: 10/10.16 mm / 0.4 inch



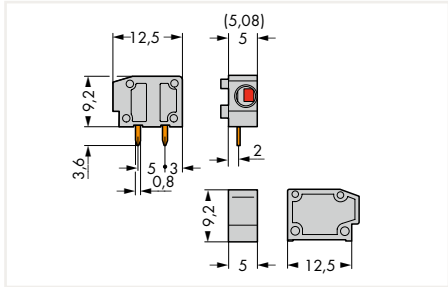
2

| Color         | Item No. | PU        |
|---------------|----------|-----------|
| ○ gray        | 235-401  | 800 (100) |
| ● dark gray   | 235-742  | 800 (100) |
| ○ light gray  | 235-743  | 800 (100) |
| ● blue        | 235-744  | 800 (100) |
| ● orange      | 235-746  | 800 (100) |
| ● light green | 235-747  | 800 (100) |

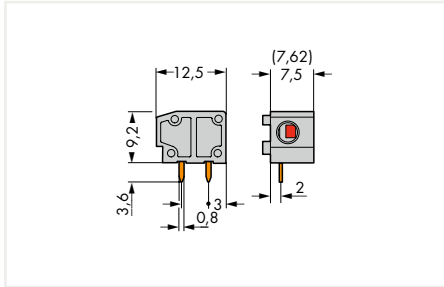
| Color         | Item No. | PU        |
|---------------|----------|-----------|
| ○ gray        | 235-501  | 600 (100) |
| ● dark gray   | 235-752  | 600 (100) |
| ○ light gray  | 235-753  | 600 (100) |
| ● blue*       | 235-754  | 600 (100) |
| ● orange      | 235-756  | 600 (100) |
| ● light green | 235-757  | 600 (100) |

| Color         | Item No. | PU        |
|---------------|----------|-----------|
| ○ gray        | 235-801  | 400 (100) |
| ● dark gray   | 235-762  | 400 (100) |
| ○ light gray  | 235-763  | 400 (100) |
| ● blue*       | 235-764  | 400 (100) |
| ● orange      | 235-766  | 400 (100) |
| ● light green | 235-767  | 400 (100) |

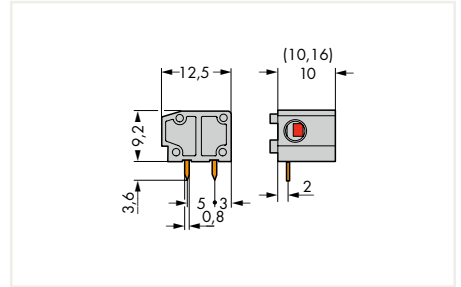
Dimensions in mm



Dimensions in mm



Dimensions in mm



\*Suitable for Ex i applications

### Accessories, for all products on this page



Intermediate plate; extends pin spacing; Width: 5 mm / 0.197 inch

| Color  | Item No. | PU  |
|--------|----------|-----|
| ○ gray | 235-701  | 100 |

End plates for modular terminal blocks; snap-on type; 1 mm thick

| Color         | Item No. | PU  |
|---------------|----------|-----|
| ○ gray        | 235-100  | 100 |
| ● dark gray   | 235-200  | 100 |
| ○ light gray  | 235-300  | 100 |
| ● blue        | 235-400  | 100 |
| ● black       | 235-500  | 100 |
| ● yellow      | 235-550  | 100 |
| ● orange      | 235-600  | 100 |
| ● violet      | 235-650  | 100 |
| ● light green | 235-700  | 100 |
| ● red         | 235-800  | 100 |
| ○ white       | 235-850  | 100 |

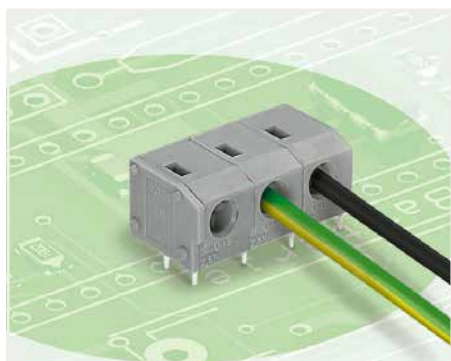
### Variants:

- Other colors
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## PCB Terminal Block ▶ 235 Series

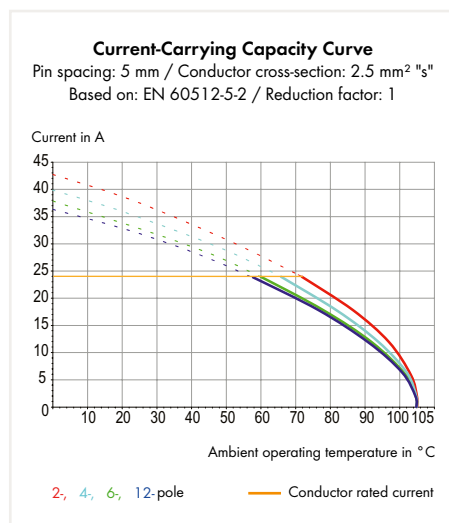
PUSH WIRE® ▶ Actuation type: operating tool ▶ 2.5 mm<sup>2</sup> ▶

Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▶ Color: gray



- Low-profile PCB terminal strips with PUSH WIRE® connection and screwdriver actuation
- Push-in termination of solid conductors
- Double solder pins for high mechanical stability
- Set to metric or inch pin spacing by compressing PCB terminal strips or pulling them apart

2



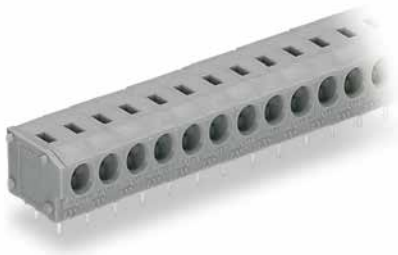
| Electrical Data                                   |   |       |       |
|---|---|-------|-------|
| Pin spacing                                       | 5/5.08 mm / 0.2 inch                        |       |       |
| Ratings per                                       | IEC/EN 60664-1                              |       |       |
| Overvoltage category                              | III   | III   | II    |
| Pollution degree                                  | 3   | 2     | 2     |
| Rated voltage                                     | 250 V                                       | 320 V | 630 V |
| Rated surge voltage                               | 4 kV  | 4 kV  | 4 kV  |
| Rated current                                     | 24 A  | 24 A  | 24 A  |
| Approvals per                                     | UL 1059                                     |       |       |
| Use group   | B   | C     | D     |
| Rated voltage                                     | 300 V                                       | –     | 300 V |
| Rated current                                     | 10 A  | –     | 10 A  |
| Approvals per                                     | CSA   |       |       |
| Use group   | B   | C     | D     |
| Rated voltage                                     | 300 V                                       | –     | –     |
| Rated current                                     | 15 A  | –     | –     |
| Connection Data                                   |   |       |       |
| Connection technology                             | PUSH WIRE®                                  |       |       |
| Strip length                                      | 9 ... 10 mm / 0.35 ... 0.39 inch            |       |       |
| Conductor entry angle to the PCB                  | 0°  |       |       |
| Conductor cross-sections                          |   |       |       |
| Solid conductor                                   | 0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG |       |       |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 1 mm <sup>2</sup>                  |       |       |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1 mm <sup>2</sup>                  |       |       |
| Solder Pin Data                                   |   |       |       |
| Solder pin length                                 | 3.6 mm                                      |       |       |
| Solder pin dimensions                             | 0.4 x 0.8 mm                                |       |       |
| Drilled hole diameter                             | 1 <sup>+0.1</sup> mm                        |       |       |
| Material Data                                     |   |       |       |
| Material group                                    | I   |       |       |
| Insulation material                               | Polyamide 66 (PA 66)                        |       |       |
| Flammability class per UL94                       | V0  |       |       |
| Limit temperature range                           | –60 ... +105 °C                             |       |       |
| Clamping spring material                          | Chrome nickel spring steel (CrNi)           |       |       |
| Contact material                                  | Electrolytic copper (E <sub>Co</sub> )      |       |       |
| Contact plating                                   | Tin-plated                                  |       |       |



## PCB Terminal Block ▶ 235 Series

PUSH WIRE® ▶ Actuation type: operating tool ▶ 2.5 mm<sup>2</sup> ▶

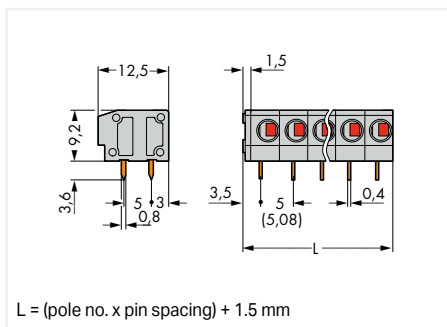
Pin spacing: 5/5.08 mm / 0.197/0.2 inch ▶ Color: gray



2

| Pole No. | Item No. | PU        |
|----------|----------|-----------|
| 2        | 235-402  | 420 (105) |
| 3        | 235-403  | 280 (70)  |
| 4        | 235-404  | 220 (55)  |
| 5        | 235-405  | 180 (45)  |
| 6        | 235-406  | 140 (35)  |
| 7        | 235-407  | 120 (30)  |
| 8        | 235-408  | 100 (25)  |
| 9        | 235-409  | 100 (25)  |
| 10       | 235-410  | 80 (20)   |
| 12       | 235-412  | 60 (15)   |

Dimensions in mm



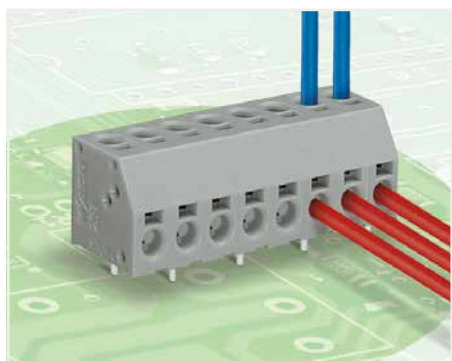
### Variants:

- Other pole numbers
- Direct marking
- Other colors: ● blue, ○ light gray, ● dark gray, ● light green, ● orange
- Mixed-color PCB connector strips
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## 2-Conductor PCB Terminal Block ▶ 253 Series

PUSH WIRE® ▶ Actuation type: operating tool ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 5 mm / 0.197 inch ▶

Color: gray

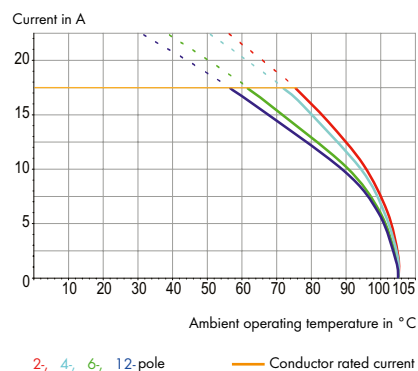


- PCB terminal strips with PUSH WIRE® connection and screwdriver actuation
- Double-conductor connection provides top-entry (vertical) and/or side-entry (horizontal) wiring
- Push-in termination of solid conductors
- Double entries for power supply and potential distribution

2

### Current-Carrying Capacity Curve Conductor – Solder Pin

Pin spacing: 5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "e"  
Based on: EN 60512-5-2 / Reduction factor: 1



#### Electrical Data

|                      |                   |        |        |
|----------------------|-------------------|--------|--------|
| Pin spacing          | 5 mm / 0.197 inch |        |        |
| Ratings per          | IEC/EN 60664-1    |        |        |
| Overvoltage category | III               | III    | II     |
| Pollution degree     | 3                 | 2      | 2      |
| Rated voltage        | 320 V             | 320 V  | 630 V  |
| Rated surge voltage  | 4 kV              | 4 kV   | 4 kV   |
| Rated current        | 17.5 A            | 17.5 A | 17.5 A |

|               |         |   |       |
|---------------|---------|---|-------|
| Approvals per | UL 1059 |   |       |
| Use group     | B       | C | D     |
| Rated voltage | 300 V   | – | 300 V |
| Rated current | 8 A     | – | 8 A   |

|               |       |   |       |
|---------------|-------|---|-------|
| Approvals per | CSA   |   |       |
| Use group     | B     | C | D     |
| Rated voltage | 300 V | – | 300 V |
| Rated current | 8 A   | – | 8 A   |

#### Connection Data

|                                      |   |
|--------------------------------------|---|
| Connection technology                | PUSH WIRE®                                  |
| Strip length                         | 8.5 ... 9.5 mm / 0.32 ... 0.36 inch         |
| Conductor entry angle (1) to the PCB | 0°  |
| Conductor entry angle (2) to the PCB | 90°   |
| Conductor cross-sections             |   |
| Solid conductor                      | 0.5 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |

#### Solder Pin Data

|                       |                        |
|-----------------------|------------------------|
| Solder pin length     | 3.6 mm                 |
| Solder pin dimensions | 0.5 x 0.8 mm           |
| Drilled hole diameter | 1.1 <sup>+0.1</sup> mm |

#### Material Data

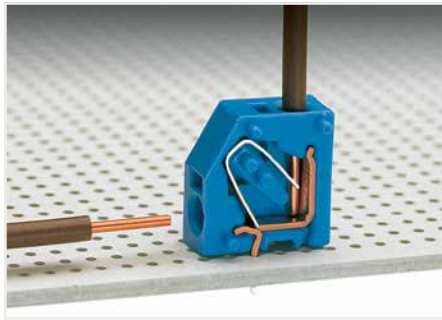
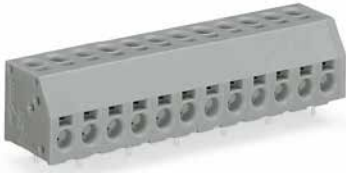
|                             |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | –60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin-plated                             |

## 2-Conductor PCB Terminal Block ▶ 253 Series

PUSH WIRE® ▶ Actuation type: operating tool ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 5 mm / 0.197 inch ▶

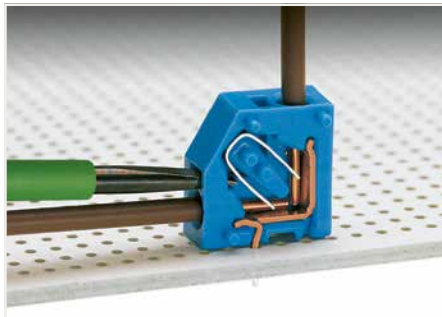
Color: gray

1 staggered solder pin/pole



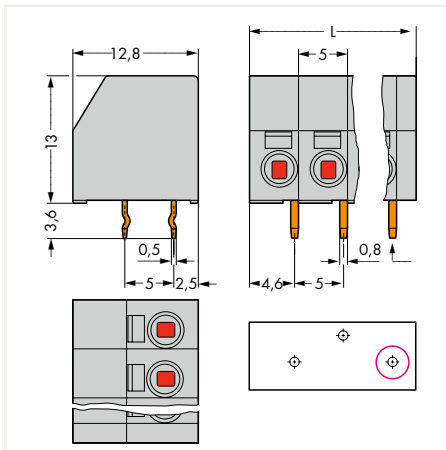
Inserting a conductor via push-in termination.

| Pole No. | Item No. | PU        |
|----------|----------|-----------|
| 2        | 253-102  | 400 (100) |
| 3        | 253-103  | 280 (70)  |
| 4        | 253-104  | 220 (55)  |
| 5        | 253-105  | 160 (40)  |
| 6        | 253-106  | 140 (35)  |
| 7        | 253-107  | 120 (30)  |
| 8        | 253-108  | 100 (25)  |
| 9        | 253-109  | 100 (25)  |
| 10       | 253-110  | 80 (20)   |
| 11       | 253-111  | 80 (20)   |
| 12       | 253-112  | 60 (15)   |
| 13       | 253-113  | 60 (15)   |
| 14       | 253-114  | 60 (15)   |
| 15       | 253-115  | 60 (15)   |
| 16       | 253-116  | 40 (10)   |

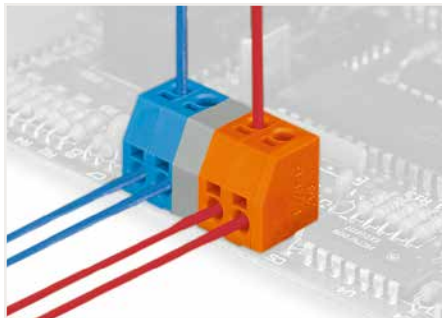


Removing a conductor via screwdriver (2.5 mm blade width).

Dimensions in mm



$L = (\text{pole no.} \times \text{pin spacing}) + 2 \text{ mm}$   
 (red circle) first solder pin, right front side



Mixed-color terminal strips (with or without spacer) are available upon request.

Variants:

- Other pole numbers
- Direct marking
- Other colors: ● red, ○ light gray, ● blue, ○ white, ● yellow, ● light green, ● black, ● orange, ● violet
- Mixed-color PCB connector strips
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

**PCB Terminal Block ▶ 2601 Series**Push-in CAGE CLAMP® ▶ Actuation type: lever ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 3.5 mm / 0.138 inch ▶

Color: gray



- PCB terminal blocks with Push-in CAGE CLAMP® connection and levers
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously, simplifying the connection of multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

2

| Electrical Data                                   |  |        |        |
|---|--|--------|--------|
| Pin spacing                                       | 3.5 mm / 0.138 inch                          |        |        |
| Ratings per                                       | IEC/EN 60664-1                               |        |        |
| Overvoltage category                              | III  | III    | II     |
| Pollution degree                                  | 3  | 2      | 2      |
| Rated voltage                                     | 160 V  | 160 V  | 320 V  |
| Rated surge voltage                               | 2.5 kV                                       | 2.5 kV | 2.5 kV |
| Rated current                                     | 17.5 A                                       | 17.5 A | 17.5 A |
| Connection Data                                   |  |        |        |
| Connection technology                             | Push-in CAGE CLAMP®                          |        |        |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inch              |        |        |
| Solid conductor                                   | 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 16 AWG |        |        |
| Fine-stranded conductor                           | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 16 AWG  |        |        |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup>                |        |        |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup>                 |        |        |
| Material Data                                     |  |        |        |
| Material group                                    | I  |        |        |
| Insulation material                               | Polyamide (PA66)                             |        |        |
| Flammability class per UL94                       | V0   |        |        |
| Clamping spring material                          | Chrome nickel spring steel (CrNi)            |        |        |
| Contact material                                  | Electrolytic copper (E <sub>cu</sub> )       |        |        |
| Contact plating                                   | Tin  |        |        |
| Mechanical Data                                   |  |        |        |
| Solder pin arrangement                            | Over the entire terminal strip (in-line)     |        |        |
| Solder pin length                                 | 3.6 mm                                       |        |        |
| Solder pin dimensions                             | 1 x 0.5 mm                                   |        |        |
| Drilled hole diameter                             | 1.2 <sup>(+0.1)</sup> mm                     |        |        |
| Environmental Requirements                        |  |        |        |
| Limit temperature range                           | -60 ... +105 °C                              |        |        |

### PCB Terminal Block ▶ 2601 Series

Push-in CAGE CLAMP® ▶ Actuation type: lever ▶ 1.5 mm<sup>2</sup> ▶ Pin spacing: 3.5 mm / 0.138 inch ▶ Color: gray

Conductor connection direction to PCB: 0°

Conductor connection direction to PCB: 90°



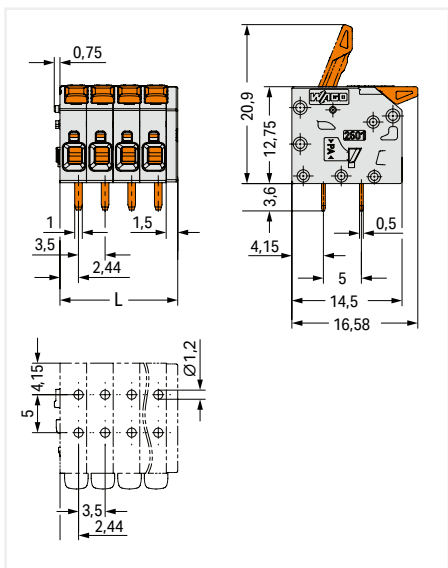
2601-1103



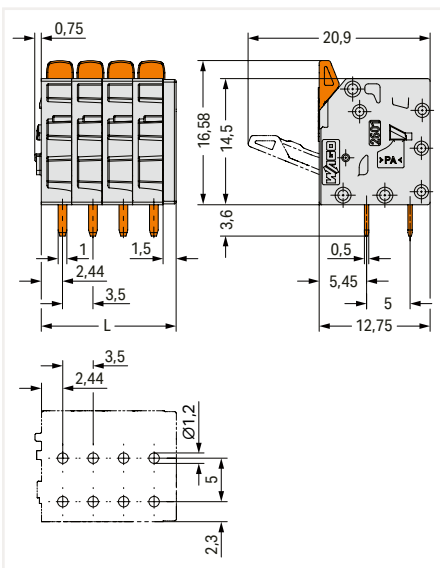
2601-3103

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2601-1102 | 120 |
| 3        | 2601-1103 | 70  |
| 4        | 2601-1104 | 50  |
| 5        | 2601-1105 | 40  |
| 6        | 2601-1106 | 30  |
| 7        | 2601-1107 | 20  |
| 8        | 2601-1108 | 20  |
| 9        | 2601-1109 | 20  |
| 10       | 2601-1110 | 10  |
| 11       | 2601-1111 | 10  |
| 12       | 2601-1112 | 10  |

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2601-3102 | 220 |
| 3        | 2601-3103 | 160 |
| 4        | 2601-3104 | 120 |
| 5        | 2601-3105 | 100 |
| 6        | 2601-3106 | 80  |
| 7        | 2601-3107 | 70  |
| 8        | 2601-3108 | 60  |
| 9        | 2601-3109 | 60  |
| 10       | 2601-3110 | 50  |
| 11       | 2601-3111 | 50  |
| 12       | 2601-3112 | 40  |



L = (pole no. - 1) x pin spacing + 5 mm



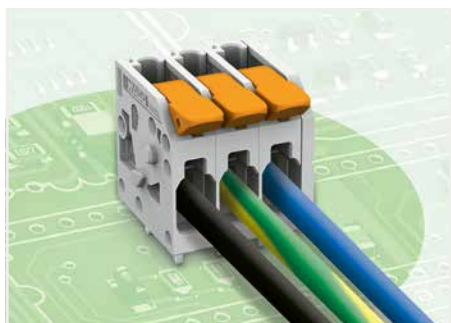
L = (pole no. - 1) x pin spacing + 5 mm

**Variants:**

- Other pole numbers
- Direct marking
- Other colors
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## PCB Terminal Block ▶ 2604 Series

Push-in CAGE CLAMP® ▶ Actuation type: lever ▶ 4 mm<sup>2</sup> ▶ Terminal strip ▶ Color: gray

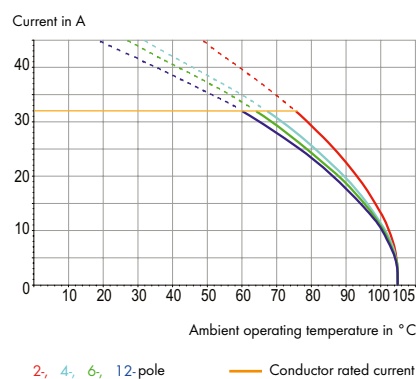


- PCB terminal block with Push-in CAGE CLAMP® connection and levers
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously, simplifying the connection of multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

2

### Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 4 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1



### Electrical Data

|                      | 5 mm / 0.197 inch |       |       | 7.5 mm / 0.295 inch |       |        | 11.5 mm / 0.453 inch |        |        |
|----------------------|-------------------|-------|-------|---------------------|-------|--------|----------------------|--------|--------|
| Pin spacing          |                   |       |       |                     |       |        |                      |        |        |
| Ratings per          | IEC/EN 60664-1    |       |       | IEC/EN 60664-1      |       |        | IEC/EN 60664-1       |        |        |
| Overvoltage category | III               | III   | II    | III                 | III   | II     | III                  | III    | II     |
| Pollution degree     | 3                 | 2     | 2     | 3                   | 2     | 2      | 3                    | 2      | 2      |
| Rated voltage        | 320 V             | 400 V | 630 V | 630 V               | 630 V | 1000 V | 1000 V               | 1000 V | 1000 V |
| Rated surge voltage  | 4 kV              | 4 kV  | 4 kV  | 6 kV                | 6 kV  | 6 kV   | 8 kV                 | 8 kV   | 8 kV   |
| Rated current        | 32 A              | 32 A  | 32 A  | 32 A                | 32 A  | 32 A   | 32 A                 | 32 A   | 32 A   |

|               | UL 1059 |   |       | UL 1059 |       |       | UL 1059 |       |   |
|---------------|---------|---|-------|---------|-------|-------|---------|-------|---|
| Approvals per |         |   |       |         |       |       |         |       |   |
| Use group     | B       | C | D     | B       | C     | D     | B       | C     | D |
| Rated voltage | 300 V   | - | 300 V | 300 V   | 300 V | 600 V | 600 V   | 600 V | - |
| Rated current | 20 A    | - | 10 A  | 20 A    | 20 A  | 5 A   | 20 A    | 20 A  | - |

### Connection Data

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                       |
| Strip length                                      | 9 ... 11 mm / 0.35 ... 0.43 inch          |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG |
| Fine-stranded conductor                           | 0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 2.5 mm <sup>2</sup>              |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm <sup>2</sup>              |
| Fine-stranded conductor; with twin ferrule        | 0.25 ... 1.5 mm <sup>2</sup>              |

### Solder Pin Data

|                       |                        |
|-----------------------|------------------------|
| Solder pin length     | 4 mm                   |
| Solder pin dimensions | 0.8 x 1 mm             |
| Drilled hole diameter | 1.3 <sup>+0.1</sup> mm |

### Material Data

|                             |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | -60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin-plated                             |



# PCB Terminal Block ▶ 2604 Series

Push-in CAGE CLAMP® ▶ Actuation type: lever ▶ 4 mm² ▶ Terminal strip ▶ Color: gray

Pin spacing: 5 mm / 0.197 inch



Pin spacing: 7.5 mm / 0.295 inch



Pin spacing: 11.5 mm / 0.453 inch



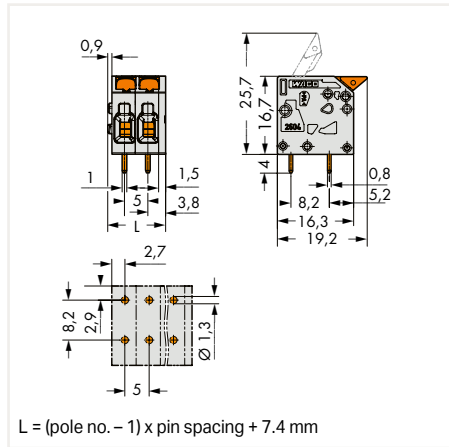
2

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 1        | 2604-1101 | 300 |
| 2        | 2604-1102 | 200 |
| 3        | 2604-1103 | 130 |
| 4        | 2604-1104 | 100 |
| 5        | 2604-1105 | 80  |
| 6        | 2604-1106 | 60  |
| 7        | 2604-1107 | 60  |
| 8        | 2604-1108 | 50  |
| 9        | 2604-1109 | 40  |
| 10       | 2604-1110 | 40  |
| 11       | 2604-1111 | 30  |
| 12       | 2604-1112 | 30  |

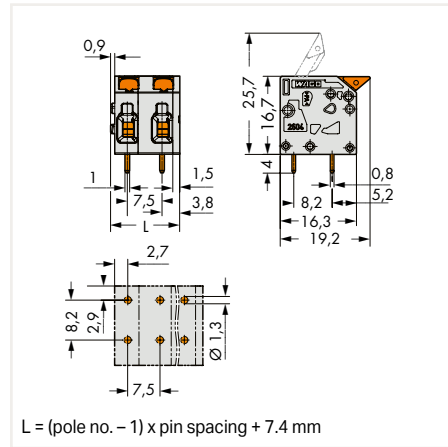
| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2604-1302 | 150 |
| 3        | 2604-1303 | 100 |
| 4        | 2604-1304 | 70  |
| 5        | 2604-1305 | 60  |
| 6        | 2604-1306 | 45  |
| 7        | 2604-1307 | 40  |
| 8        | 2604-1308 | 35  |
| 9        | 2604-1309 | 30  |
| 10       | 2604-1310 | 25  |
| 11       | 2604-1311 | 25  |
| 12       | 2604-1312 | 25  |

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2604-1502 | 120 |
| 3        | 2604-1503 | 70  |
| 4        | 2604-1504 | 50  |
| 5        | 2604-1505 | 40  |
| 6        | 2604-1506 | 30  |
| 7        | 2604-1507 | 25  |
| 8        | 2604-1508 | 25  |
| 9        | 2604-1509 | 25  |
| 10       | 2604-1510 | 20  |
| 11       | 2604-1511 | 20  |
| 12       | 2604-1512 | 15  |

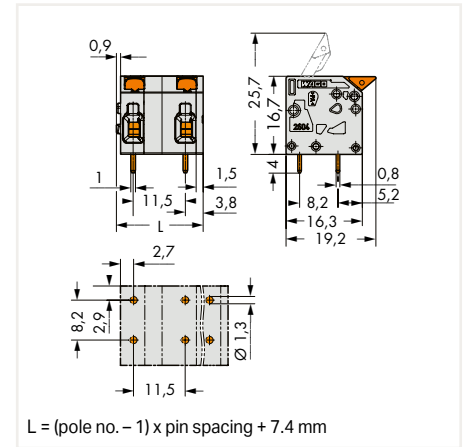
Dimensions in mm



Dimensions in mm



Dimensions in mm



**Variants:**

- Other pole numbers
- Direct marking
- Other colors
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## PCB Terminal Block ▶ 2604 Series

Push-in CAGE CLAMP® ▶ Actuation type: lever ▶ 4 mm<sup>2</sup> ▶ Terminal strip ▶ Color: gray

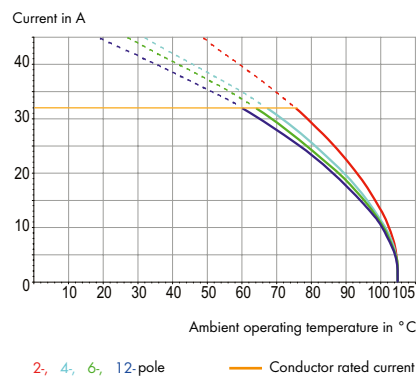


- PCB terminal block with Push-in CAGE CLAMP® connection and levers
- Push-in termination of solid and ferruled conductors
- Intuitive and tool-free operation
- Several clamping units can be held open simultaneously, simplifying the connection of multi-core cables
- Testing can be performed both parallel and perpendicular to conductor entry

2

### Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 4 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1



### Electrical Data

| Pin spacing          | 5 mm / 0.197 inch |       |       | 7.5 mm / 0.295 inch |       |        | 11.5 mm / 0.453 inch |        |        |
|----------------------|-------------------|-------|-------|---------------------|-------|--------|----------------------|--------|--------|
|                      | IEC/EN 60664-1    |       |       |                     |       |        |                      |        |        |
| Ratings per          | IEC/EN 60664-1    |       |       | IEC/EN 60664-1      |       |        | IEC/EN 60664-1       |        |        |
| Overvoltage category | III               | III   | II    | III                 | III   | II     | III                  | III    | II     |
| Pollution degree     | 3                 | 2     | 2     | 3                   | 2     | 2      | 3                    | 2      | 2      |
| Rated voltage        | 320 V             | 400 V | 630 V | 630 V               | 630 V | 1000 V | 1000 V               | 1000 V | 1000 V |
| Rated surge voltage  | 4 kV              | 4 kV  | 4 kV  | 6 kV                | 6 kV  | 6 kV   | 8 kV                 | 8 kV   | 8 kV   |
| Rated current        | 32 A              | 32 A  | 32 A  | 32 A                | 32 A  | 32 A   | 32 A                 | 32 A   | 32 A   |

| Approvals per | UL 1059 |   |       | UL 1059 |       |       | UL 1059 |       |   |
|---------------|---------|---|-------|---------|-------|-------|---------|-------|---|
|               | B       | C | D     | B       | C     | D     | B       | C     | D |
| Use group     | B       | C | D     | B       | C     | D     | B       | C     | D |
| Rated voltage | 300 V   | - | 300 V | 300 V   | 300 V | 600 V | 600 V   | 600 V | - |
| Rated current | 20 A    | - | 10 A  | 20 A    | 20 A  | 5 A   | 20 A    | 20 A  | - |

### Connection Data

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                       |
| Strip length                                      | 9 ... 11 mm / 0.35 ... 0.43 inch          |
| Conductor entry angle to the PCB                  | 90°                                       |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG |
| Fine-stranded conductor                           | 0.2 ... 4 mm <sup>2</sup> / 24 ... 12 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 2.5 mm <sup>2</sup>              |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm <sup>2</sup>              |
| Fine-stranded conductor; with twin ferrule        | 0.25 ... 1.5 mm <sup>2</sup>              |

### Solder Pin Data

|                       |                        |
|-----------------------|------------------------|
| Solder pin length     | 4 mm                   |
| Solder pin dimensions | 0.8 x 1 mm             |
| Drilled hole diameter | 1.3 <sup>+0.1</sup> mm |

### Material Data

|                             |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | -60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin-plated                             |

# PCB Terminal Block ▶ 2604 Series

Push-in CAGE CLAMP® ▶ Actuation type: lever ▶ 4 mm<sup>2</sup> ▶ Terminal strip ▶ Color: gray

Pin spacing: 5 mm / 0.197 inch

Pin spacing: 7.5 mm / 0.295 inch

Pin spacing: 11.5 mm / 0.453 inch



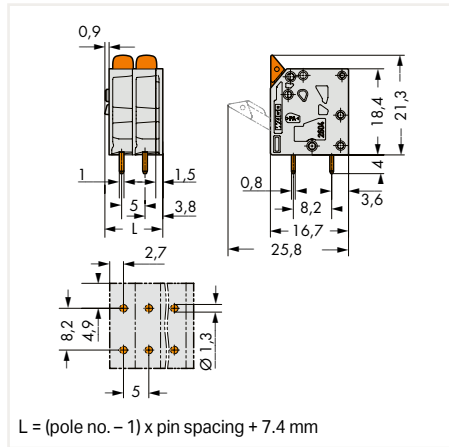
2

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 1        | 2604-3101 | 250 |
| 2        | 2604-3102 | 180 |
| 3        | 2604-3103 | 120 |
| 4        | 2604-3104 | 90  |
| 5        | 2604-3105 | 70  |
| 6        | 2604-3106 | 50  |
| 7        | 2604-3107 | 50  |
| 8        | 2604-3108 | 40  |
| 9        | 2604-3109 | 40  |
| 10       | 2604-3110 | 30  |
| 11       | 2604-3111 | 30  |
| 12       | 2604-3112 | 30  |

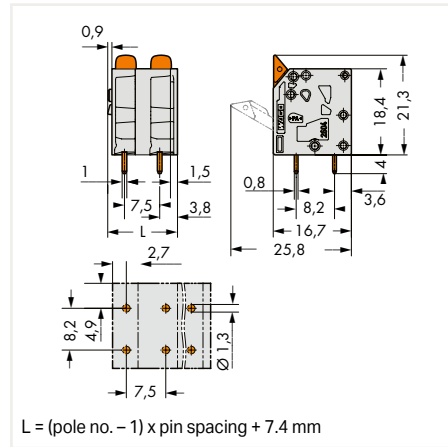
| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2604-3302 | 150 |
| 3        | 2604-3303 | 100 |
| 4        | 2604-3304 | 70  |
| 5        | 2604-3305 | 50  |
| 6        | 2604-3306 | 45  |
| 7        | 2604-3307 | 40  |
| 8        | 2604-3308 | 30  |
| 9        | 2604-3309 | 30  |
| 10       | 2604-3310 | 25  |
| 11       | 2604-3311 | 25  |
| 12       | 2604-3312 | 25  |

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2604-3502 | 120 |
| 3        | 2604-3503 | 70  |
| 4        | 2604-3504 | 50  |
| 5        | 2604-3505 | 40  |
| 6        | 2604-3506 | 30  |
| 7        | 2604-3507 | 25  |
| 8        | 2604-3508 | 25  |
| 9        | 2604-3509 | 25  |
| 10       | 2604-3510 | 20  |
| 11       | 2604-3511 | 20  |
| 12       | 2604-3512 | 15  |

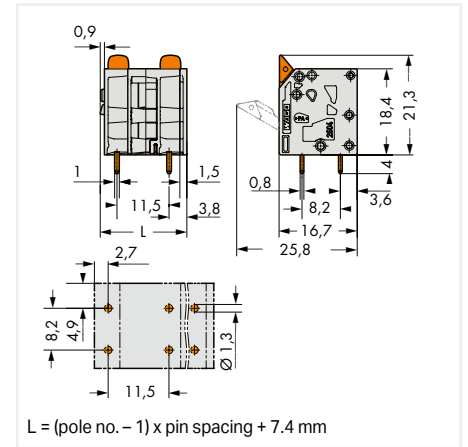
Dimensions in mm



Dimensions in mm



Dimensions in mm



Variants:

- Other pole numbers
- Direct marking
- Other colors
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

**PCB Terminal Block ▶ 2624 Series**Push-in CAGE CLAMP® ▶ Actuation type: operating tool ▶ 6 mm<sup>2</sup> ▶ Terminal strip ▶

Color: gray

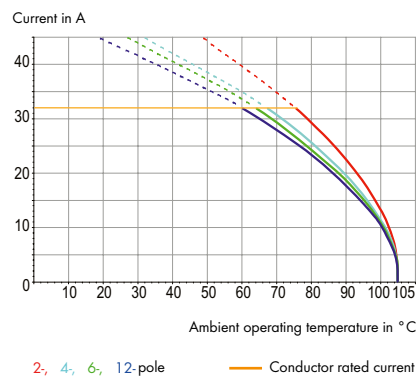


- PCB terminal block with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry

2

**Current-Carrying Capacity Curve**

Pin spacing: 5 mm / Conductor cross-section: 4 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1

**Electrical Data**

|                      | 5 mm / 0.197 inch |       |       | 7.5 mm / 0.295 inch |       |        | 11.5 mm / 0.453 inch |        |        |
|----------------------|-------------------|-------|-------|---------------------|-------|--------|----------------------|--------|--------|
| Pin spacing          |                   |       |       |                     |       |        |                      |        |        |
| Ratings per          | IEC/EN 60664-1    |       |       | IEC/EN 60664-1      |       |        | IEC/EN 60664-1       |        |        |
| Overvoltage category | III               | III   | II    | III                 | III   | II     | III                  | III    | II     |
| Pollution degree     | 3                 | 2     | 2     | 3                   | 2     | 2      | 3                    | 2      | 2      |
| Rated voltage        | 320 V             | 400 V | 630 V | 630 V               | 630 V | 1000 V | 1000 V               | 1000 V | 1000 V |
| Rated surge voltage  | 4 kV              | 4 kV  | 4 kV  | 6 kV                | 6 kV  | 6 kV   | 8 kV                 | 8 kV   | 8 kV   |
| Rated current        | 41 A              | 41 A  | 41 A  | 41 A                | 41 A  | 41 A   | 41 A                 | 41 A   | 41 A   |

|               | UL 1059 |   |       | UL 1059 |       |       | UL 1059 |       |   |
|---------------|---------|---|-------|---------|-------|-------|---------|-------|---|
| Approvals per |         |   |       |         |       |       |         |       |   |
| Use group     | B       | C | D     | B       | C     | D     | B       | C     | D |
| Rated voltage | 300 V   | – | 300 V | 300 V   | 150 V | 300 V | 600 V   | 600 V | – |
| Rated current | 26 A    | – | 10 A  | 26 A    | 26 A  | 10 A  | 26 A    | 26 A  | – |

**Connection Data**

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                       |
| Strip length                                      | 10 ... 12 mm / 0.39 ... 0.47 inch         |
| Conductor entry angle to the PCB                  | 0°  |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 6 mm <sup>2</sup> / 24 ... 10 AWG |
| Fine-stranded conductor                           | 0.2 ... 6 mm <sup>2</sup> / 24 ... 10 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 2.5 mm <sup>2</sup>              |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm <sup>2</sup>              |
| Fine-stranded conductor; with twin ferrule        | 0.25 ... 1.5 mm <sup>2</sup>              |

**Solder Pin Data**

|                       |                        |
|-----------------------|------------------------|
| Solder pin length     | 4 mm                   |
| Solder pin dimensions | 0.8 x 1 mm             |
| Drilled hole diameter | 1.3 <sup>+0.1</sup> mm |

**Material Data**

|                             |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | –60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin-plated                             |

# PCB Terminal Block ▶ 2624 Series

Push-in CAGE CLAMP® ▶ Actuation type: operating tool ▶ 6 mm<sup>2</sup> ▶ Terminal strip ▶

Color: gray

Pin spacing: 5 mm / 0.197 inch

Pin spacing: 7.5 mm / 0.295 inch

Pin spacing: 11.5 mm / 0.453 inch



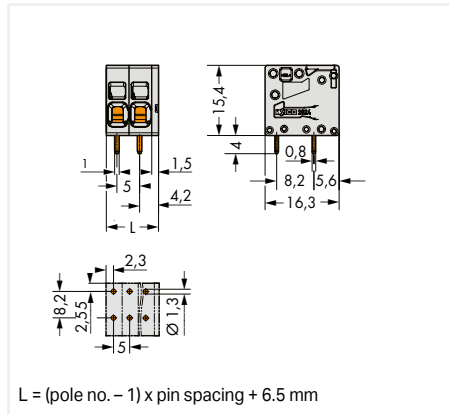
2

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 1        | 2624-1101 | 300 |
| 2        | 2624-1102 | 200 |
| 3        | 2624-1103 | 150 |
| 4        | 2624-1104 | 100 |
| 5        | 2624-1105 | 100 |
| 6        | 2624-1106 | 80  |
| 7        | 2624-1107 | 50  |
| 8        | 2624-1108 | 50  |
| 9        | 2624-1109 | 50  |
| 10       | 2624-1110 | 40  |
| 11       | 2624-1111 | 35  |
| 12       | 2624-1112 | 35  |

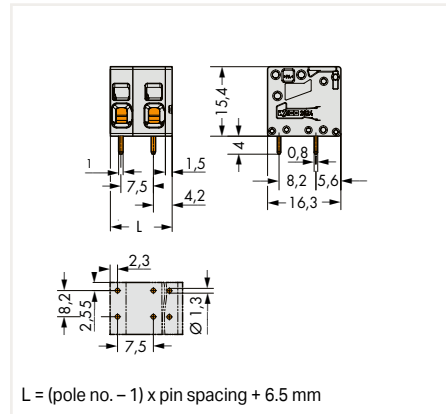
| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2624-1302 | 200 |
| 3        | 2624-1303 | 120 |
| 4        | 2624-1304 | 80  |
| 5        | 2624-1305 | 70  |
| 6        | 2624-1306 | 50  |
| 7        | 2624-1307 | 50  |
| 8        | 2624-1308 | 40  |
| 9        | 2624-1309 | 35  |
| 10       | 2624-1310 | 35  |
| 11       | 2624-1311 | 25  |
| 12       | 2624-1312 | 25  |

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2624-1502 | 100 |
| 3        | 2624-1503 | 80  |
| 4        | 2624-1504 | 50  |
| 5        | 2624-1505 | 40  |
| 6        | 2624-1506 | 40  |
| 7        | 2624-1507 | 30  |
| 8        | 2624-1508 | 25  |
| 9        | 2624-1509 | 25  |
| 10       | 2624-1510 | 20  |
| 11       | 2624-1511 | 20  |
| 12       | 2624-1512 | 20  |

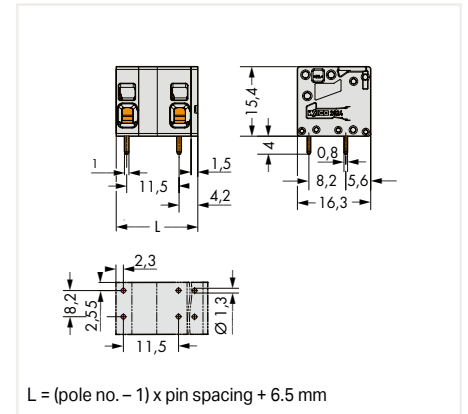
Dimensions in mm



Dimensions in mm



Dimensions in mm



Variants:

- Other pole numbers
- Direct marking
- Other colors
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.

## PCB Terminal Block ▶ 2624 Series

Push-in CAGE CLAMP® ▶ Actuation type: operating tool ▶ 6 mm<sup>2</sup> ▶ Terminal strip ▶ Color: gray

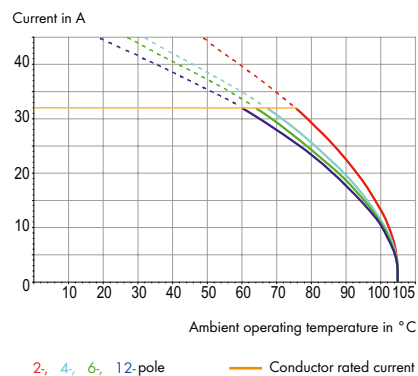


- PCB terminal block with Push-in CAGE CLAMP® connection
- Push-in termination of solid and ferruled conductors
- Ideal for panel feedthrough applications via operation parallel to conductor entry
- Testing can be performed both parallel and perpendicular to conductor entry

2

### Current-Carrying Capacity Curve

Pin spacing: 5 mm / Conductor cross-section: 4 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 1



### Electrical Data

| Pin spacing          | 5 mm / 0.197 inch |       |       | 7.5 mm / 0.295 inch |       |        | 11.5 mm / 0.453 inch |        |        |
|----------------------|-------------------|-------|-------|---------------------|-------|--------|----------------------|--------|--------|
|                      | IEC/EN 60664-1    |       |       |                     |       |        |                      |        |        |
| Ratings per          | IEC/EN 60664-1    |       |       | IEC/EN 60664-1      |       |        | IEC/EN 60664-1       |        |        |
| Overvoltage category | III               | III   | II    | III                 | III   | II     | III                  | III    | II     |
| Pollution degree     | 3                 | 2     | 2     | 3                   | 2     | 2      | 3                    | 2      | 2      |
| Rated voltage        | 320 V             | 400 V | 630 V | 630 V               | 630 V | 1000 V | 1000 V               | 1000 V | 1000 V |
| Rated surge voltage  | 4 kV              | 4 kV  | 4 kV  | 6 kV                | 6 kV  | 6 kV   | 8 kV                 | 8 kV   | 8 kV   |
| Rated current        | 41 A              | 41 A  | 41 A  | 41 A                | 41 A  | 41 A   | 41 A                 | 41 A   | 41 A   |

| Approvals per | UL 1059 |   |       | UL 1059 |       |       | UL 1059 |       |   |
|---------------|---------|---|-------|---------|-------|-------|---------|-------|---|
|               | B       | C | D     | B       | C     | D     | B       | C     | D |
| Use group     | B       | C | D     | B       | C     | D     | B       | C     | D |
| Rated voltage | 300 V   | - | 300 V | 300 V   | 150 V | 300 V | 600 V   | 600 V | - |
| Rated current | 26 A    | - | 10 A  | 26 A    | 26 A  | 10 A  | 26 A    | 26 A  | - |

### Connection Data

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                       |
| Strip length                                      | 10 ... 12 mm / 0.39 ... 0.47 inch         |
| Conductor entry angle to the PCB                  | 90°                                       |
| Conductor cross-sections                          |   |
| Solid conductor                                   | 0.2 ... 6 mm <sup>2</sup> / 24 ... 10 AWG |
| Fine-stranded conductor                           | 0.2 ... 6 mm <sup>2</sup> / 24 ... 10 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 2.5 mm <sup>2</sup>              |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 2.5 mm <sup>2</sup>              |
| Fine-stranded conductor; with twin ferrule        | 0.25 ... 1.5 mm <sup>2</sup>              |

### Solder Pin Data

|                       |                        |
|-----------------------|------------------------|
| Solder pin length     | 4 mm                   |
| Solder pin dimensions | 0.8 x 1 mm             |
| Drilled hole diameter | 1.3 <sup>+0.1</sup> mm |

### Material Data

|                             |  |
|-----------------------------|--|
| Material group              | I                                      |
| Insulation material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Limit temperature range     | -60 ... +105 °C                        |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating             | Tin-plated                             |

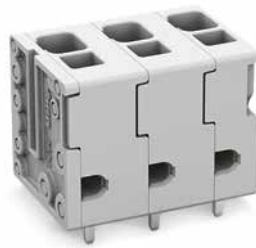
# PCB Terminal Block ▶ 2624 Series

Push-in CAGE CLAMP® ▶ Actuation type: operating tool ▶ 6 mm<sup>2</sup> ▶ Terminal strip ▶ Color: gray

Pin spacing: 5 mm / 0.197 inch

Pin spacing: 7.5 mm / 0.295 inch

Pin spacing: 11.5 mm / 0.453 inch



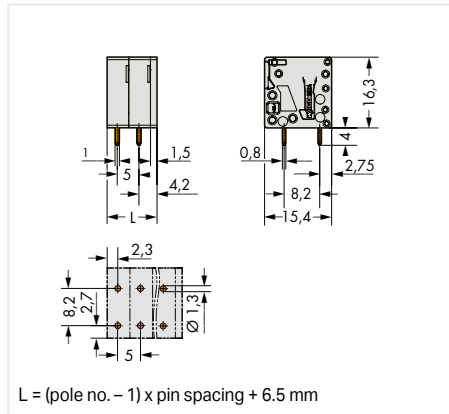
2

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 1        | 2624-3101 | 300 |
| 2        | 2624-3102 | 200 |
| 3        | 2624-3103 | 150 |
| 4        | 2624-3104 | 100 |
| 5        | 2624-3105 | 100 |
| 6        | 2624-3106 | 80  |
| 7        | 2624-3107 | 50  |
| 8        | 2624-3108 | 50  |
| 9        | 2624-3109 | 50  |
| 10       | 2624-3110 | 40  |
| 11       | 2624-3111 | 35  |
| 12       | 2624-3112 | 35  |

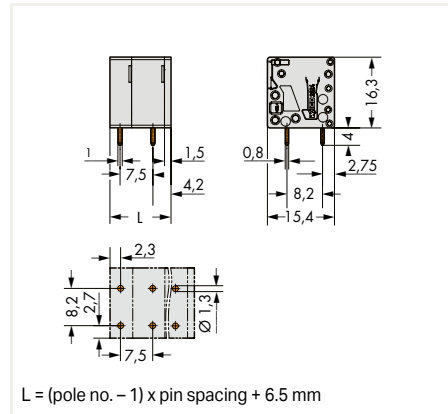
| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2624-3302 | 200 |
| 3        | 2624-3303 | 120 |
| 4        | 2624-3304 | 80  |
| 5        | 2624-3305 | 70  |
| 6        | 2624-3306 | 50  |
| 7        | 2624-3307 | 50  |
| 8        | 2624-3308 | 40  |
| 9        | 2624-3309 | 35  |
| 10       | 2624-3310 | 35  |
| 11       | 2624-3311 | 25  |
| 12       | 2624-3312 | 25  |

| Pole No. | Item No.  | PU  |
|----------|-----------|-----|
| 2        | 2624-3502 | 100 |
| 3        | 2624-3503 | 80  |
| 4        | 2624-3504 | 50  |
| 5        | 2624-3505 | 40  |
| 6        | 2624-3506 | 40  |
| 7        | 2624-3507 | 30  |
| 8        | 2624-3508 | 25  |
| 9        | 2624-3509 | 25  |
| 10       | 2624-3510 | 20  |
| 11       | 2624-3511 | 20  |
| 12       | 2624-3512 | 20  |

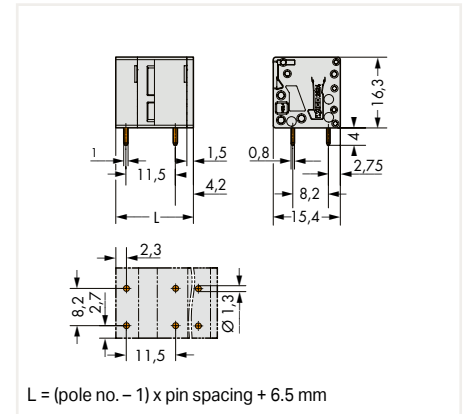
Dimensions in mm



Dimensions in mm



Dimensions in mm



**Variants:**

- Other pole numbers
- Direct marking
- Other colors
- Other versions (or variants) can be requested from WAGO Sales or configured at <https://configurator.wago.com/>.





# **WAGO MULTI CONNECTION SYSTEM**

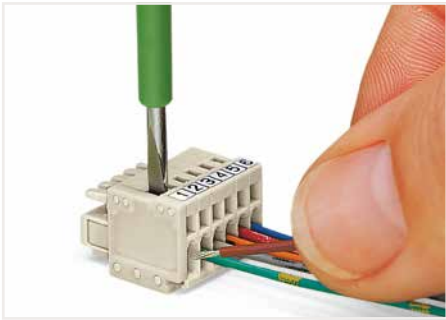
## WAGO MULTI CONNECTION SYSTEM

|   |   | Series                    | Page |
|---|---|---------------------------|------|
|    | MICRO; Pin Spacing: 2.5 mm  | 733                       | 104  |
|    | MINI HD; Pin Spacing: 3.5 mm  | 713                       | 104  |
|    | MINI SL; Pin Spacing: 3.5 mm  | 714                       | 104  |
|    | MINI; Pin Spacing: 3.5 mm   | 734<br>2734               | 105  |
|    | MINI; Pin Spacing: 3.81 mm  | 734<br>2734               | 106  |
|   | MIDI; Pin Spacing: 5 mm   | 721<br>722<br>2721        | 107  |
|  | MIDI Classic; Pin Spacing: 5 mm   | 231<br>232<br>731<br>2231 | 108  |
|  | MIDI Classic; Pin Spacing: 5.08 mm  | 231<br>232<br>2231        | 109  |
|  | <i>picoMAX</i> ® Pluggable Connectors<br><i>picoMAX</i> ® eCOM Connectors | 2091<br>2092              | 110  |

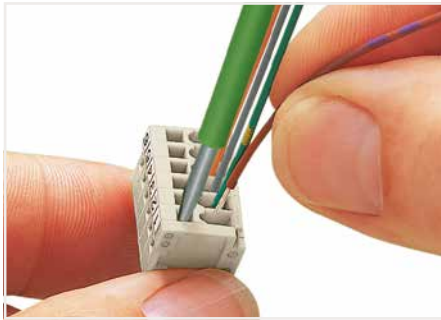
# MCS – MULTI CONNECTION SYSTEM

## Description and Installation

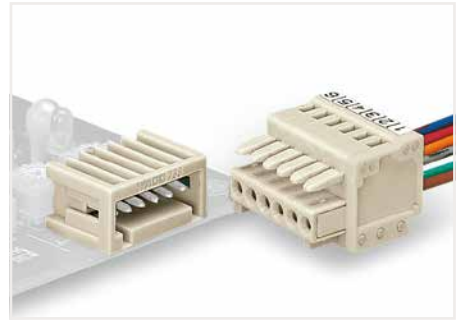
3



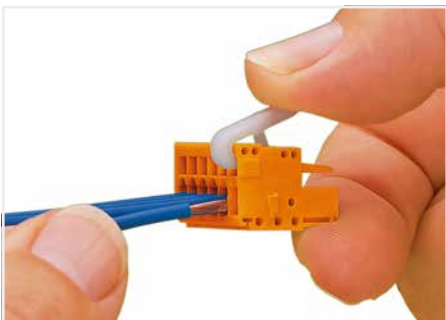
Inserting a conductor via (2.5 x 0.4) mm screwdriver. Operation perpendicular to conductor entry



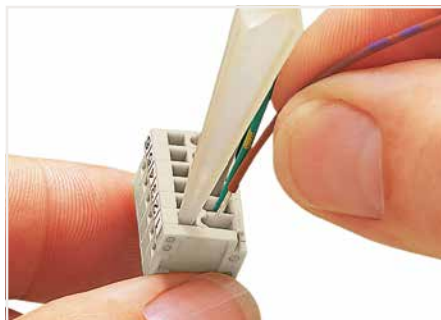
Inserting a conductor via (2.5 x 0.4) mm screwdriver. Operation parallel to conductor entry



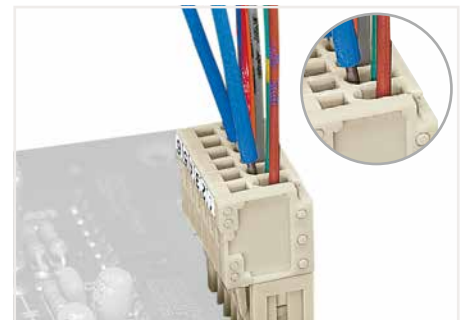
Male header and female connector – 100% protected against mismatching  
Only mating halves with the same pole number can be connected.



Inserting a conductor via push-button. (Item No. 734-230).



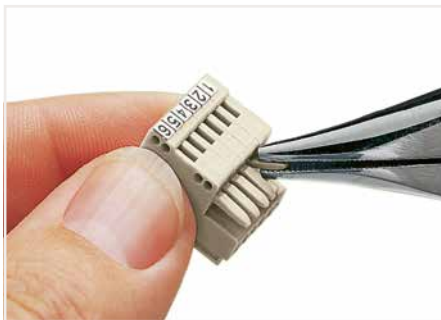
Inserting a conductor via operating tool. (Item No. 233-332). Operation parallel to conductor entry



Testing via 1 mm Ø test pin (Item No. 735-500), touch contact.



Coding a male header – fitting coding key(s).



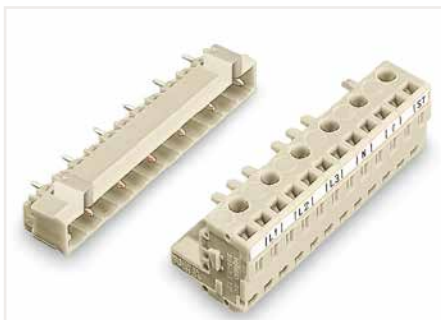
Coding a female connector – removing coding finger(s).



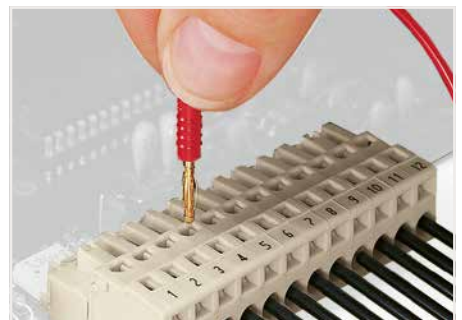
Factory marking or custom marking via self-adhesive strips



Prevents the insulation of smaller conductors from being inserted into the clamping unit.



For 10 mm pin spacing, please contact factory.

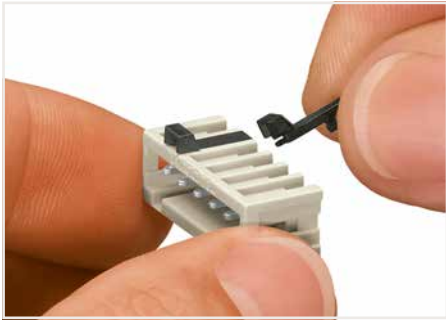


Testing with 2 mm or 2.3 mm Ø test plug.

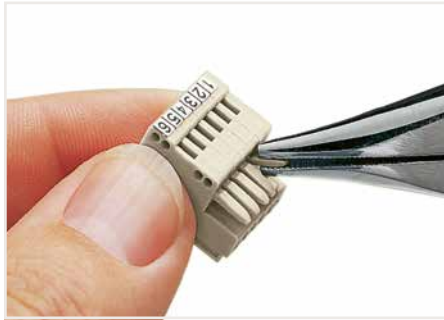
# MCS – MULTI CONNECTION SYSTEM

## Description and Installation

3



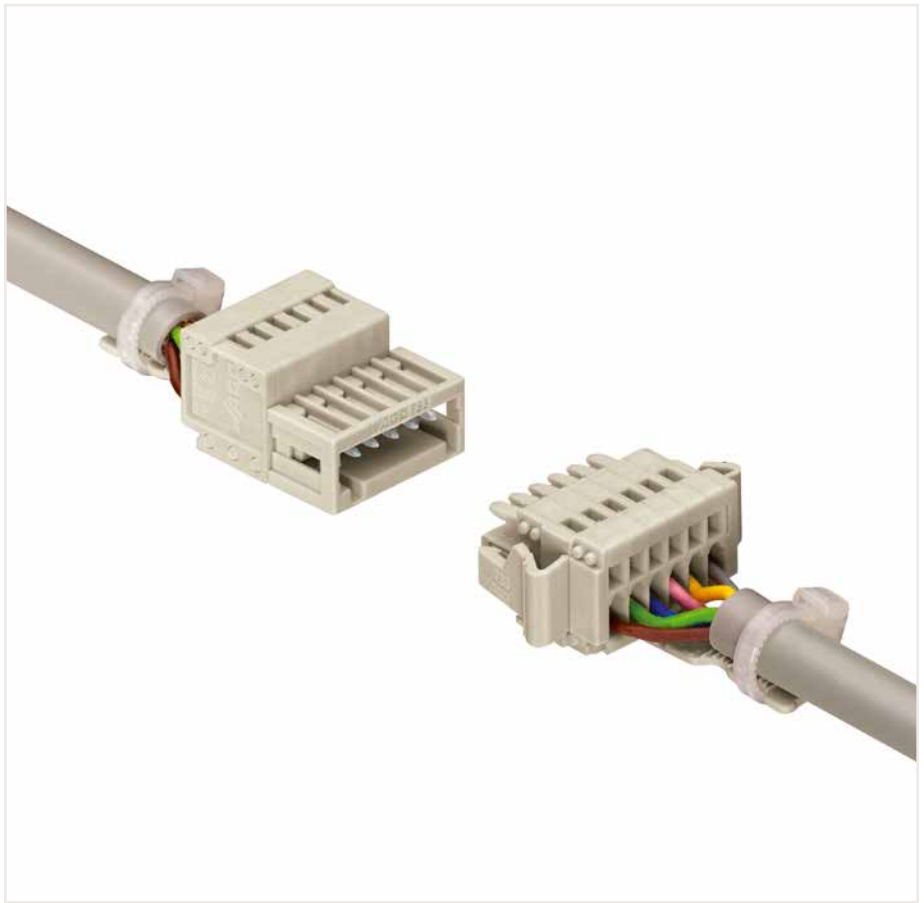
Coding a male header – fitting coding key(s).



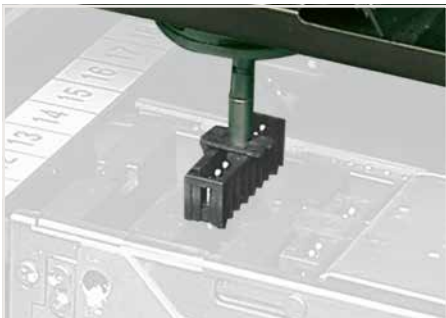
Coding a female connector – removing coding finger(s).



Wire-to-wire connection of single conductors



Wire-to-wire connection of multi-core cables  
Plug-in connection using strain relief plates and locking levers



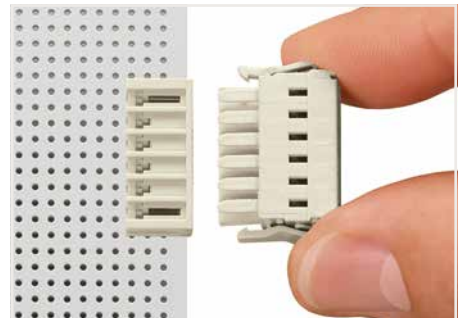
THR male headers for reflow soldering in SMT applications



Tape-and-reel packaging for THR male headers



Locking levers prevent accidental disconnection.



Locking levers prevent accidental disconnection.



# MCS – MULTI CONNECTION SYSTEM

## Product Overview by Pin Spacing

3

| 2.5 mm   |            |   |            |  |            |                                    |            |          |            |
|--|------------|---|------------|--|------------|------------------------------------|------------|----------|------------|
| 733 Series; MICRO; 100% Mismatching Protection; 160 V; 6 A |            |   |            |  |            |                                    |            |          |            |
| Item No.   | Pack. Unit | Item No.  | Pack. Unit | Item No.   | Pack. Unit | Item No.                           | Pack. Unit | Item No. | Pack. Unit |
| Male headers with straight solder pins;<br>2 ... 12 poles  |            | Male headers with straight solder pins;<br>2 ... 12 poles |            | Female connectors;<br>2 ... 12 poles                     |            | Male connectors;<br>2 ... 12 poles |            |          |            |
| ○  |            | ●   |            | ○  |            | ○                                  |            |          |            |
| 733-332  | 200        | 733-332/105-604   | 200        | 733-102  | 200        | 733-202                            | 200        |          |            |
| 733-342  | 100        | 733-342/105-604   | 100        | 733-112  | 50         | 733-212                            | 50         |          |            |
| Male headers with angled solder pins;<br>2 ... 12 poles    |            | Male headers with angled solder pins;<br>2 ... 12 poles   |            | Female connectors with locking levers;<br>2 ... 12 poles |            |                                    |            |          |            |
| ○  |            | ●   |            | ○  |            |                                    |            |          |            |
| 733-362  | 200        | 733-362/105-604   | 200        | 733-102/037-000  | 100        |                                    |            |          |            |
| 733-372  | 100        | 733-372/105-604   | 100        | 733-112/037-000  | 50         |                                    |            |          |            |

| 3.5 mm   |            |  |            |  |            |  |            |  |            |
|--|------------|--|------------|--|------------|--|------------|--|------------|
| 713 Series; MINI HD; 100% Mismatching Protection; 160 V; 10 A                  |            |  |            |  |            |  |            |  |            |
| Item No.   | Pack. Unit | Item No.   | Pack. Unit | Item No.   | Pack. Unit | Item No.   | Pack. Unit | Item No.   | Pack. Unit |
| Male headers with straight solder pins;<br>6 ... 36 poles                      |            | Male headers with angled solder pins;<br>6 ... 36 poles                      |            | Male headers with straight solder pins;<br>6 ... 36 poles                      |            | Male headers with angled solder pins;<br>6 ... 36 poles                      |            | Female connectors;<br>6 ... 36 poles                       |            |
| ●  |            | ●  |            | ●  |            | ●  |            | ●  |            |
| 713-1403   | 100        | 713-1423   | 100        | 713-1403/105-000   | 100        | 713-1423/105-000   | 100        | 713-1103   | 100        |
| 713-1418   | 20         | 713-1438   | 20         | 713-1418/105-000   | 20         | 713-1438/105-000   | 20         | 713-1118   | 20         |
| Male headers with straight solder pins and levers;<br>6 ... 36 poles           |            | Male headers with angled solder pins and levers;<br>6 ... 36 poles           |            | Male headers with straight solder pins and levers;<br>6 ... 36 poles           |            | Male headers with angled solder pins and levers;<br>6 ... 36 poles           |            | Female connectors with levers;<br>6 ... 36 poles           |            |
| ●  |            | ●  |            | ●  |            | ●  |            | ●  |            |
| 713-1403/037-000   | 50         | 713-1423/037-000   | 50         | 713-1403/116-000   | 50         | 713-1423/116-000   | 50         | 713-1103/037-000   | 50         |
| 713-1418/037-000   | 10         | 713-1438/037-000   | 10         | 713-1418/116-000   | 10         | 713-1438/116-000   | 10         | 713-1118/037-000   | 51         |
| Male headers with straight solder pins and threaded flanges;<br>6 ... 36 poles |            | Male headers with angled solder pins and threaded flanges;<br>6 ... 36 poles |            | Male headers with straight solder pins and threaded flanges;<br>6 ... 36 poles |            | Male headers with angled solder pins and threaded flanges;<br>6 ... 36 poles |            | Female connectors with threaded flanges;<br>6 ... 36 poles |            |
| ●  |            | ●  |            | ●  |            | ●  |            | ●  |            |
| 713-1403/107-000   | 50         | 713-1423/107-000   | 50         | 713-1403/117-000   | 50         | 713-1423/117-000   | 50         | 713-1103/107-000   | 50         |
| 713-1418/107-000   | 10         | 713-1438/107-000   | 10         | 713-1418/117-000   | 10         | 713-1438/117-000   | 10         | 713-1118/107-000   | 10         |

| 3.5 mm  |            |   |            |                                      |            |          |            |          |            |
|---|------------|---|------------|--------------------------------------|------------|----------|------------|----------|------------|
| 714 Series; MINI SL; 160 V; 8 A                           |            |   |            |                                      |            |          |            |          |            |
| Item No.  | Pack. Unit | Item No.  | Pack. Unit | Item No.                             | Pack. Unit | Item No. | Pack. Unit | Item No. | Pack. Unit |
| Male headers with straight solder pins;<br>2 ... 16 poles |            | Male headers with angled solder pins;<br>2 ... 16 poles |            | Female connectors;<br>2 ... 16 poles |            |          |            |          |            |
| ●   |            | ●   |            | ●                                    |            |          |            |          |            |
| 714-132   | 200        | 714-162   | 200        | 714-102                              | 200        |          |            |          |            |
| 714-146   | 100        | 714-176   | 100        | 714-116                              | 50         |          |            |          |            |

THR Through-hole reflow soldering

# MCS – MULTI CONNECTION SYSTEM

## Product Overview by Pin Spacing

| 3.5 mm  |            |  |            |   |            |   |            |   |     |
|---|------------|--|------------|---|------------|---|------------|---|-----|
| 734/2734 Series; MINI; 100% Mismatch Protection                                 |            |  |            |   |            |   |            |   |     |
| Item No.  | Pack. Unit | Item No.   | Pack. Unit | Item No.  | Pack. Unit | Item No.  | Pack. Unit |   |     |
| Male headers with straight solder pins;<br>2 ... 24 poles                       |            | Female headers with straight solder pins;<br>2 ... 24 poles                    |            | Female connectors;<br>2 ... 24 poles                            |            | Male connectors;<br>2 ... 24 poles  |            | Combi strip;<br>2 ... 12 poles  |     |
| 734-132   | 200        | 734-462  | 200        | 734-102   | 200        | 734-302   | 200        | 734-362   | 100 |
| 734-154   | 50         | 734-484  | 25         | 734-124   | 25         | 734-324   | 25         | 734-372   | 25  |
| 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                    |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                   |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                    |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                |     |
| Male headers with angled solder pins;<br>2 ... 24 poles                         |            | Female headers with angled solder pins;<br>2 ... 24 poles                      |            | Female connectors with locking levers;<br>2 ... 24 poles        |            | Male connectors with mounting flanges;<br>2 ... 24 poles                    |            | Combi strips with locking levers;<br>2 ... 12 poles                         |     |
| 734-162   | 200        | 734-532  | 200        | 734-102/037-000   | 100        | 734-302/019-000   | 100        | 734-362/037-000   | 100 |
| 734-184   | 50         | 734-554  | 25         | 734-124/037-000   | 10         | 734-324/019-000   | 10         | 734-372/037-000   | 25  |
| 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                    |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                   |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                    |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                |     |
| Male headers with straight solder pins;<br>2 ... 16 poles                       |            | Female headers with straight solder pins and locking levers;<br>2 ... 24 poles |            | Female connectors with snap-in mounting feet;<br>2 ... 24 poles |            | Male connectors with snap-in mounting feet;<br>2 ... 24 poles               |            | Combi strips with snap-in mounting feet;<br>2 ... 12 poles                  |     |
| 734-132/105-604   | 200        | 734-462/037-000  | 100        | 734-102/008-000   | 200        | 734-302/018-000   | 200        | 734-362/008-000   | 100 |
| 734-146/105-604   | 50         | 734-484/037-000  | 10         | 734-124/008-000   | 25         | 734-324/018-000   | 25         | 734-372/008-000   | 25  |
| 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                    |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                   |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                    |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                |     |
| Male headers with angled solder pins;<br>2 ... 16 poles                         |            | Female headers with angled solder pins and locking levers;<br>2 ... 24 poles   |            |   |            |   |            |   |     |
| 734-162/105-604   | 200        | 734-532/037-000  | 100        |   |            |   |            |   |     |
| 734-176/105-604   | 50         | 734-554/037-000  | 10         |   |            |   |            |   |     |
| 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                    |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                   |            |   |            |   |            |   |     |
| Double-deck male headers with angled solder pins;<br>4 ... 24 poles             |            |  |            |   |            | Female connectors with levers;<br>2 ... 16 poles                            |            | Female connectors with push-buttons;<br>2 ... 24 poles                      |     |
| 734-402   | 100        |  |            |   |            | 2734-1102/327-000   | 200        | 2734-102  | 200 |
| 734-412   | 50         |  |            |   |            | 2734-1116/327-000   | 25         | 2734-124  | 25  |
| 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 AWG                                    |            |  |            |   |            | 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 AWG                                |            | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG                                 |     |
| Double-deck male headers with angled solder pins and support;<br>4 ... 24 poles |            |  |            |   |            | Female connectors with levers and lateral locking levers;<br>2 ... 16 poles |            | Female connectors with push-buttons and locking levers;<br>2 ... 24 poles   |     |
| 734-402/001-000   | 100        |  |            |   |            | 2734-1102/038-000   | 100        | 2734-102/037-000  | 100 |
| 734-412/001-000   | 50         |  |            |   |            | 2734-1116/038-000   | 25         | 2734-124/037-000  | 10  |
| 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 AWG                                    |            |  |            |   |            | 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 AWG                                |            | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG                                 |     |
| Male headers with straight solder pins and threaded flanges;<br>2 ... 24 poles  |            |  |            |   |            | Female connectors with levers and center locking levers;<br>4 ... 10 poles  |            | Female connectors with push-buttons and mounting flanges;<br>2 ... 24 poles |     |
| 734-132/108-000   | 200        |  |            |   |            | 2734-1104/328-000   | 50         | 2734-102/031-000  | 100 |
| 734-154/108-000   | 50         |  |            |   |            | 2734-1110/328-000   | 50         | 2734-124/031-000  | 10  |
| 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 AWG                                    |            |  |            |   |            | 0.14 ... 1.5 mm <sup>2</sup> / 26 ... 14 AWG                                |            | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG                                 |     |
| Male headers with angled solder pins and threaded flanges;<br>2 ... 24 poles    |            | Female connectors with screw flanges;<br>2 ... 24 poles                        |            | Male connectors with threaded flanges;<br>2 ... 24 poles        |            | Female connectors with push-buttons and screw flanges;<br>2 ... 24 poles    |            |   |     |
|   |            | 734-162/108-000  | 200        | 734-102/107-000   | 100        | 734-302/109-000   | 100        | 2734-102/107-000  | 100 |
|   |            | 734-184/108-000  | 50         | 734-124/107-000   | 10         | 734-324/109-000   | 10         | 2734-124/107-000  | 10  |
|   |            |  |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                    |            | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                                |            | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG                                 |     |

# MCS – MULTI CONNECTION SYSTEM

## Product Overview by Pin Spacing

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| 3.81 mm  |                 |   |                 |  |                 |  |  |  |                  |     |                  |     |
|--|-----------------|---|-----------------|--|-----------------|--|--|--|------------------|-----|------------------|-----|
| 734/2734 Series; MINI; 100% Mismatch Protection                              |                 |   |                 |  |                 |  |  |  |                  |     |                  |     |
| Item No.   | Pack. Unit      | Item No.  | Pack. Unit      | Item No.   | Pack. Unit      | Item No.   | Pack. Unit                                   |  |                  |     |                  |     |
| Male headers with straight solder pins; 2 ... 20 poles                       |                 | Female headers with straight solder pins; 2 ... 20 poles                    |                 | Female connectors; 2 ... 20 poles                            |                 | Male connectors; 2 ... 20 poles                            |  | Female connectors with push-buttons; 2 ... 20 poles                      |                  |     |                  |     |
| 734-232  | 200             | 734-502   | 200             | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                 | 734-202         | 200  | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG                              | 734-332          | 200 | 2734-202         | 200 |
| 734-250  | 50              | 734-520   | 25              | 734-220  | 25              | 734-350  | 25   | 734-220  | 25               |     |                  |     |
| Male headers with angled solder pins; 2 ... 20 poles                         |                 | Female headers with angled solder pins; 2 ... 20 poles                      |                 | Female connectors with locking levers; 2 ... 20 poles        |                 | Male connectors with mounting flanges; 2 ... 20 poles      |  | Female connectors with push-buttons and locking levers; 2 ... 20 poles   |                  |     |                  |     |
| 734-262  | 200             | 734-562   | 200             | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG                 | 734-202/037-000 | 100  | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG | 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG                              | 734-332/019-000  | 100 | 2734-202/037-000 | 100 |
| 734-280  | 50              | 734-580   | 25              | 734-220/037-000  | 10              | 734-350/019-000  | 10   | 734-220/037-000  | 10               |     |                  |     |
| Male headers with straight solder pins; 2 ... 16 poles                       |                 | Female headers with straight solder pins and locking levers; 2 ... 20 poles |                 | Female connectors with snap-in mounting feet; 2 ... 20 poles |                 | Male connectors with snap-in mounting feet; 2 ... 20 poles |  | Female connectors with push-buttons and mounting flanges; 2 ... 20 poles |                  |     |                  |     |
| THR  | 734-232/105-604 | 200   | 734-502/037-000 | 100  | 734-202/008-000 | 200  | 734-332/018-000                              | 200  | 2734-202/031-000 | 100 |                  |     |
| 734-242/105-604  | 100             | 734-520/037-000   | 10              | 734-220/008-000  | 25              | 734-350/018-000  | 25   | 2734-220/031-000   | 10               |     |                  |     |
| Male headers with angled solder pins; 2 ... 16 poles                         |                 | Female headers with angled solder pins and locking levers; 2 ... 20 poles   |                 |  |                 |  |  |  |                  |     |                  |     |
| THR  | 734-262/105-604 | 200   | 734-562/037-000 | 100  |                 |  |  |  |                  |     |                  |     |
| 734-272/105-604  | 100             | 734-580/037-000   | 10              |  |                 |  |  |  |                  |     |                  |     |
| Double-deck male headers with angled solder pins; 4 ... 24 poles             |                 |   |                 |  |                 |  |  |  |                  |     |                  |     |
| 734-432  | 100             |   |                 |  |                 |  |  |  |                  |     |                  |     |
| 734-442  | 50              |   |                 |  |                 |  |  |  |                  |     |                  |     |
| Double-deck male headers with angled solder pins and support; 4 ... 24 poles |                 |   |                 |  |                 |  |  |  |                  |     |                  |     |
| 734-432/001-000  | 100             |   |                 |  |                 |  |  |  |                  |     |                  |     |
| 734-442/001-000  | 50              |   |                 |  |                 |  |  |  |                  |     |                  |     |



# MCS – MULTI CONNECTION SYSTEM

## Product Overview by Pin Spacing

| 5 mm  |            |   |            |   |            |  |            |
|---|------------|---|------------|---|------------|--|------------|
| 721/722/2721 Series; MIDI; 100% Mismatch Protection; 320 V; 12 A (16 A)               |            |   |            |   |            |  |            |
| Item No.  | Pack. Unit | Item No.  | Pack. Unit | Item No.  | Pack. Unit | Item No.   | Pack. Unit |
| Male headers with straight solder pins; 2 ... 20 poles                                |            | Female headers with straight solder pins; 2 ... 20 poles                    |            | Female connectors; 2 ... 20 poles   |            | Male connectors; 2 ... 20 poles  |            |
| 721-132/001-000   | 200        | 722-132   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                             |            |
| 721-150/001-000   | 50         | 722-150   | 10         | Female connectors with locking levers; 2 ... 20 poles                               |            | Male connectors with mounting flanges; 2 ... 20 poles                    |            |
| 721-432/001-000   | 200        | 722-232   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                             |            |
| 721-450/001-000   | 50         | 722-250   | 10         | Female connectors with snap-in mounting feet; 2 ... 20 poles                        |            | Male connectors with snap-in mounting feet; 2 ... 20 poles               |            |
| 721-162/001-000   | 200        | 722-132/039-000   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                             |            |
| 721-180/001-000   | 50         | 722-150/039-000   | 10         | 721-102/008-000   | 100        | 721-602/018-000  | 100        |
| Male headers with angled solder pins; 2 ... 20 poles                                  |            | Female headers with angled solder pins; 2 ... 20 poles                      |            | Female connectors with mounting flanges; 2 ... 20 poles                             |            | Male connectors with snap-in flanges; 2 ... 20 poles                     |            |
| 721-462/001-000   | 200        | 722-232/039-000   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG  |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                             |            |
| 721-480/001-000   | 50         | 722-250/039-000   | 10         | 721-102/031-000   | 100        | 721-602/114-000  | 100        |
| Male connectors for rail-mount terminal blocks; 2 ... 20 poles                        |            | Female headers with straight solder pins and locking levers; 2 ... 20 poles |            | Angled female connectors, conductor entry same direction as latches; 2 ... 20 poles |            | Female connectors with push-buttons and mounting flanges; 2 ... 20 poles |            |
| 721-162/003-000   | 200        | 722-132/031-000   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG  |            | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG                              |            |
| 721-180/003-000   | 50         | 722-150/031-000   | 10         | 722-202/026-000   | 100        | 2721-1102/326-000  | 100        |
| Female connectors for rail-mount terminal blocks; 2 ... 20 poles                      |            | Female headers with angled solder pins and mounting flanges; 2 ... 20 poles |            | Angled female connectors, conductor entry opposite of latches; 2 ... 20 poles       |            | Female connectors with levers and locking levers; 2 ... 16 poles         |            |
| 722-132/005-000   | 100        | 722-232/031-000   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG  |            | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG                              |            |
| 722-150/005-000   | 10         | 722-250/031-000   | 10         | 722-102/026-000   | 100        | 2721-1102/037-000  | 100        |
| Female connectors with locking levers wfor rail-mount terminal blocks; 2 ... 20 poles |            | Female headers with straight solder pins and spacers; 2 ... 20 poles        |            | 2-conductor female connectors; 2 ... 16 poles                                       |            | Female connectors with flanges for panel mounting; 2 ... 20 poles        |            |
| 722-132/005-000/039-000   | 100        | 722-132/047-000   | 100        | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                             |            |
| 722-150/005-000/039-000   | 10         | 722-150/047-000   | 10         | 721-2102/026-000  | 100        | 721-302/031-000  | 100        |
| Female connectors with locking levers; 2 ... 16 poles                                 |            | Female headers with angled solder pins and spacers; 2 ... 20 poles          |            | 2-conductor female connectors with locking levers; 2 ... 16 poles                   |            | Female connectors with snap-in feet for panel mounting; 2 ... 20 poles   |            |
| 722-132/005-000/039-000   | 100        | 722-232/047-000   | 100        | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                             |            |
| 722-150/005-000/039-000   | 10         | 722-250/047-000   | 10         | 721-2116/026-000  | 25         | 721-302/008-000  | 100        |
|   |            |   |            | 721-2102/037-000  | 100        | 721-320/008-000  | 10         |
|   |            |   |            | 721-2116/037-000  | 10         |  |            |

# MCS – MULTI CONNECTION SYSTEM

## Product Overview by Pin Spacing

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| 5 mm  |            |   |            |   |            |  |            |   |     |
|---|------------|---|------------|---|------------|--|------------|---|-----|
| 231/232/731/2231 Series; MIDI Classic; 320 V; 12 A                          |            |   |            |   |            |  |            |   |     |
| Item No.  | Pack. Unit | Item No.  | Pack. Unit | Item No.  | Pack. Unit | Item No.   | Pack. Unit |   |     |
| Male headers with straight solder pins; 2 ... 24 poles                      |            | Female headers with straight solder pins; 2 ... 24 poles                      |            | Female connectors; 2 ... 24 poles   |            | Male connectors; 2 ... 24 poles  |            | Female connectors with push-buttons; 2 ... 24 poles                           |     |
| 231-132/001-000   | 200        | 232-132   | 100        | 231-102/026-000   | 100        | 231-602  | 100        | 2231-102/026-000  | 100 |
| 231-154/001-000   | 50         | 232-154   | 10         | 231-124/026-000   | 10         | 231-624  | 10         | 2231-124/026-000  | 10  |
| Male headers with angled solder pins; 2 ... 24 poles                        |            | Female headers with angled solder pins; 2 ... 24 poles                        |            | Female connectors with locking levers; 2 ... 24 poles                               |            | Male connectors with mounting flanges; 2 ... 24 poles                      |            | Female connectors with push-buttons and locking levers; 2 ... 24 poles        |     |
| 231-432/001-000   | 200        | 232-232   | 100        | 231-102/037-000   | 100        | 231-602/019-000  | 100        | 2231-102/037-000  | 100 |
| 231-454/001-000   | 50         | 232-254   | 10         | 231-124/037-000   | 10         | 231-624/019-000  | 10         | 2231-124/037-000  | 10  |
| Male headers with straight solder pins and mounting flanges; 2 ... 14 poles |            | Female headers with straight solder pins and locking levers; 2 ... 24 poles   |            | Female connectors with snap-in mounting feet; 2 ... 24 poles                        |            | Male connectors with snap-in mounting feet; 2 ... 24 poles                 |            | Female connectors with push-buttons and snap-in mounting feet; 2 ... 24 poles |     |
| 231-132/040-000   | 200        | 232-132/039-000   | 100        | 231-102/008-000   | 100        | 231-602/018-000  | 100        | 2231-102/008-000  | 100 |
| 231-144/040-000   | 50         | 232-154/039-000   | 10         | 231-124/008-000   | 10         | 231-624/018-000  | 10         | 2231-124/008-000  | 10  |
| Male headers with angled solder pins and mounting flanges; 2 ... 14 poles   |            | Female headers with angled solder pins and locking levers; 2 ... 24 poles     |            | Female connectors with mounting flanges; 2 ... 24 poles                             |            | Male connectors with snap-in flanges; 2 ... 24 poles                       |            | Female connectors with push-buttons and mounting flanges; 2 ... 24 poles      |     |
| 231-432/040-000   | 200        | 232-232/039-000   | 100        | 231-102/031-000   | 100        | 231-602/114-000  | 50         | 2231-102/031-000  | 100 |
| 231-444/040-000   | 50         | 232-254/039-000   | 10         | 231-124/031-000   | 10         | 231-624/114-000  | 10         | 2231-124/031-000  | 10  |
| Male headers with straight solder pins; 2 ... 12 poles                      |            | Female headers with straight solder pins and mounting flanges; 2 ... 24 poles |            | Angled female connectors, conductor entry same direction as latches; 2 ... 24 poles |            |  |            | Female connectors with push-buttons and integrated end plate; 2 ... 24 poles  |     |
| 231-132/001-000/105-604   | 200        | 232-132/031-000   | 100        | 232-202/026-000   | 100        |  |            | 2231-102/102-000  | 100 |
| 231-142/001-000/105-604   | 100        | 232-154/031-000   | 10         | 232-224/026-000   | 10         |  |            | 2231-124/102-000  | 10  |
| Male headers with angled solder pins; 2 ... 12 poles                        |            | Female headers with angled solder pins and mounting flanges; 2 ... 24 poles   |            | Angled female connectors, conductor entry opposite of latches; 2 ... 24 poles       |            | Double-pin male connectors for DIN-35 rail mounting; 2 ... 24 poles        |            | Female connectors with levers; 2 ... 16 poles                                 |     |
| 231-132/001-000/105-604   | 200        | 232-232/031-000   | 100        | 232-102/026-000   | 100        | 232-502/007-000  | 100        | 2231-1102/327-000   | 100 |
| 231-142/001-000/105-604   | 100        | 232-254/031-000   | 10         | 232-124/026-000   | 10         | 232-524/007-000  | 10         | 2231-1116/327-000   | 25  |
| Double-deck male headers; 2 ... 16 poles                                    |            |   |            | 2-conductor female connectors; 2 ... 16 poles                                       |            | Female connectors with mounting flanges for panel mounting; 2 ... 20 poles |            | Female connectors with levers and locking levers; 2 ... 16 poles              |     |
| 232-332   | 100        |   |            | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                               |            | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG                                   |     |
| 232-346   | 25         |   |            | 231-2102/026-000  | 100        | 731-502/031-000  | 100        | 2231-1102/038-000   | 100 |
|   |            |   |            | 231-2116/026-000  | 25         | 731-520/031-000  | 10         | 2231-1116/038-000   | 10  |
| Male connectors for rail-mount terminal blocks; 2 ... 20 poles              |            | Female connectors for rail-mount terminal blocks; 2 ... 20 poles              |            | 2-conductor female connectors with locking levers; 2 ... 16 poles                   |            | Female connectors with snap-in feet for panel mounting; 2 ... 20 poles     |            |   |     |
| 231-162/003-000   | 200        | 232-132/005-000   | 100        | 231-2102/037-000  | 100        | 731-502/008-000  | 100        |   |     |
| 231-180/003-000   | 50         | 232-150/005-000   | 10         | 231-2116/037-000  | 10         | 731-520/008-000  | 10         |   |     |

# MCS – MULTI CONNECTION SYSTEM

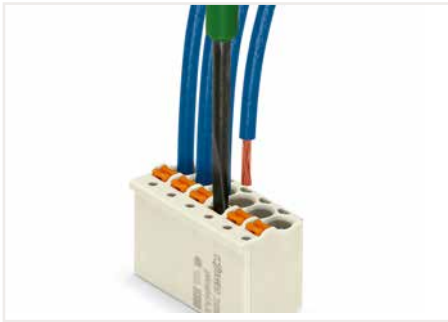
## Product Overview by Pin Spacing

| 5.08 mm   |            |   |            |   |                  |   |  |   |                  |     |
|---|------------|---|------------|---|------------------|---|--|---|------------------|-----|
| 231/232/731/2231 Series; MIDI Classic; 320 V; 12 A (16 A)                   |            |   |            |   |                  |   |  |   |                  |     |
| Item No.  | Pack. Unit | Item No.  | Pack. Unit | Item No.  | Pack. Unit       | Item No.  | Pack. Unit                                   |   |                  |     |
| Male headers with straight solder pins; 2 ... 24 poles                      |            | Female headers with straight solder pins; 2 ... 24 poles                      |            | Female connectors; 2 ... 24 poles                                 |                  | Male connectors; 2 ... 24 poles                                   |  | Female connectors with push-buttons; 2 ... 24 poles                                 |                  |     |
| 231-332/001-000   | 200        | 232-162   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                      | 231-302/026-000  | 100   | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG   | 2231-302/026-000 | 100 |
| 231-354/001-000   | 50         | 232-184   | 10         | 231-324/026-000   | 10               | 231-654   | 10   | 2231-324/026-000  | 10               |     |
| Male headers with angled solder pins; 2 ... 24 poles                        |            | Female headers with angled solder pins; 2 ... 24 poles                        |            | Female connectors with locking levers; 2 ... 24 poles             |                  | Male connectors with mounting flanges; 2 ... 24 poles             |  | Female connectors with push-buttons and locking levers; 2 ... 24 poles              |                  |     |
| 231-532/001-000   | 200        | 232-262   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                      | 231-302/037-000  | 100   | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG   | 2231-302/037-000 | 100 |
| 231-554/001-000   | 50         | 232-284   | 10         | 231-324/037-000   | 10               | 231-654/019-000   | 10   | 2231-324/037-000  | 10               |     |
| Male headers with straight solder pins; 16 A; 2 ... 24 poles                |            | Female headers with straight solder pins and locking levers; 2 ... 24 poles   |            | Female connectors with snap-in mounting feet; 2 ... 24 poles      |                  | Male connectors with snap-in mounting feet; 2 ... 24 poles        |  | Female connectors with push-buttons and snap-in mounting feet; 2 ... 24 poles       |                  |     |
| 231-362/001-000   | 200        | 232-162/039-000   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                      | 231-302/008-000  | 100   | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG   | 2231-302/008-000 | 100 |
| 231-384/001-000   | 50         | 232-184/039-000   | 10         | 231-324/008-000   | 10               | 231-654/018-000   | 10   | 2231-324/008-000  | 10               |     |
| Male headers with angled solder pins; 16 A; 2 ... 24 poles                  |            | Female headers with angled solder pins and locking levers; 2 ... 24 poles     |            | Female connectors with mounting flanges; 2 ... 24 poles           |                  | Male connectors with snap-in flanges; 2 ... 24 poles              |  | Female connectors with push-buttons and mounting flanges; 2 ... 24 poles            |                  |     |
| 231-562/001-000   | 200        | 232-262/039-000   | 100        | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                      | 231-302/031-000  | 100   | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG   | 2231-302/031-000 | 100 |
| 231-584/001-000   | 50         | 232-284/039-000   | 10         | 231-324/031-000   | 10               | 231-654/114-000   | 10   | 2231-324/031-000  | 10               |     |
| Double-deck male headers; 2 ... 16 poles                                    |            | Female headers with straight solder pins and mounting flanges; 2 ... 24 poles |            | 2-conductor female connectors; 2 ... 16 poles                     |                  |   |  | Angled female connectors, conductor entry same direction as latches; 2 ... 24 poles |                  |     |
| 232-362   | 100        | 232-162/031-000   | 100        | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG                       | 231-2302/026-000 | 100   |  | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG  | 232-402/026-000  | 100 |
| 232-376   | 25         | 232-184/031-000   | 10         | 231-2316/026-000  | 25               |   |  | 232-424/026-000   | 10               |     |
|   |            | Female headers with angled solder pins and mounting flanges; 2 ... 24 poles   |            | 2-conductor female connectors with locking levers; 2 ... 16 poles |                  |   |  | Angled female connectors, conductor entry opposite of latches; 2 ... 24 poles       |                  |     |
|   |            | 232-262/031-000   | 100        | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG                       | 231-2302/037-000 | 100   |  | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG  | 232-302/026-000  | 100 |
|   |            | 232-284/031-000   | 10         | 231-2316/037-000  | 10               |   |  | 232-324/026-000   | 10               |     |
| Male headers with straight solder pins and threaded flanges; 2 ... 16 poles |            |   |            | 2-conductor female connectors with screw flanges; 2 ... 16 poles  |                  | Male connectors with snap-in and threaded flanges; 2 ... 16 poles |  | Double-pin male connectors for DIN-35 rail mounting; 2 ... 24 poles                 |                  |     |
| 231-332/108-000   | 200        |   |            | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG                       | 231-2302/107-000 | 100   | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG | 232-532/007-000   | 100              |     |
| 231-346/108-000   | 50         |   |            | 231-2316/107-000  | 10               | 231-646/129-000   | 10   | 232-554/007-000   | 10               |     |
| Male headers with angled solder pins and threaded flanges; 2 ... 16 poles   |            |   |            | Female connectors with screw flanges; 2 ... 16 poles              |                  | Male connectors with threaded flanges; 2 ... 16 poles             |  | Female connectors with push-buttons and screw flanges; 2 ... 24 poles               |                  |     |
| 231-532/108-000   | 200        |   |            | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG                      | 231-302/107-000  | 100   | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 12 AWG   | 2231-302/107-000 | 100 |
| 231-546/108-000   | 50         |   |            | 231-316/107-000   | 10               | 231-646/109-000   | 10   | 2231-316/107-000  | 10               |     |

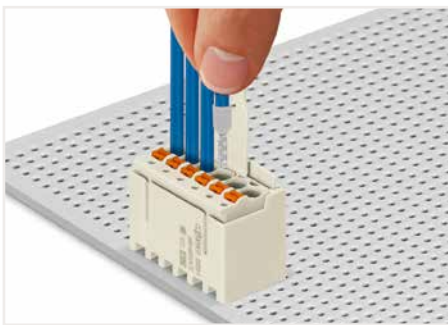


### picoMAX® Pluggable Connectors Description and Installation

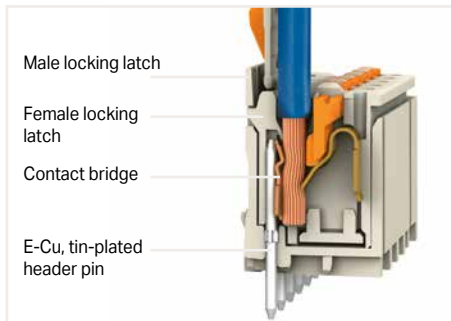
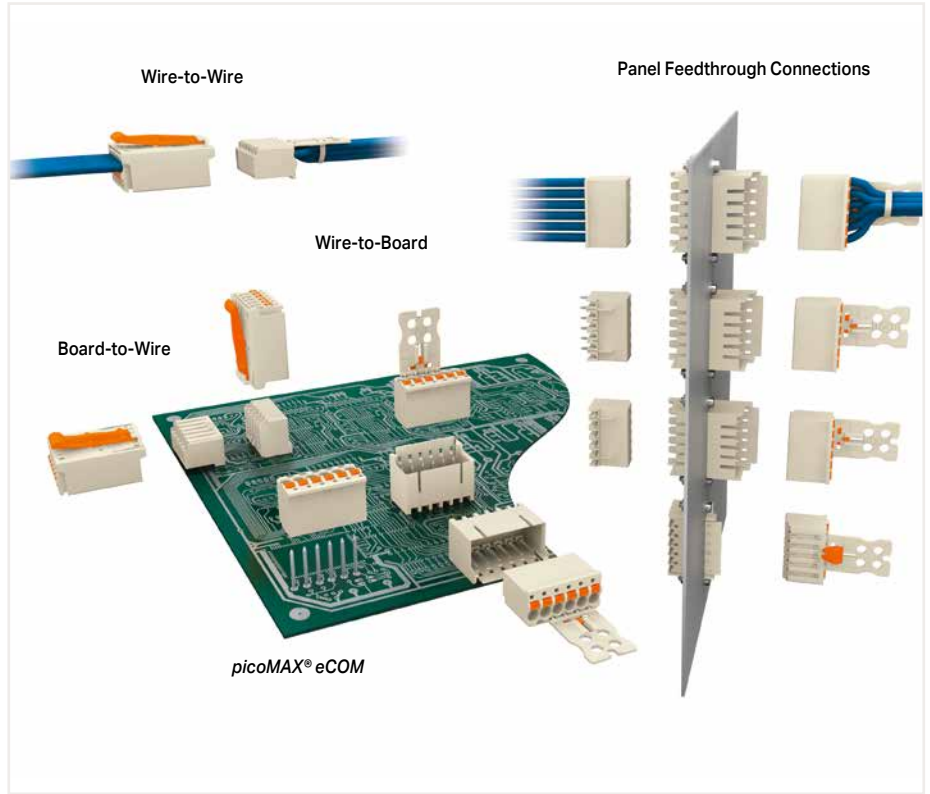
3



Inserting a fine-stranded conductor into an unmated female connector via push-button.

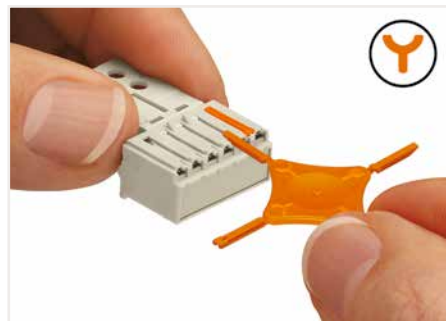


Inserting solid and ferruled conductors via push-in termination. For push-in termination, see notes on page 75.

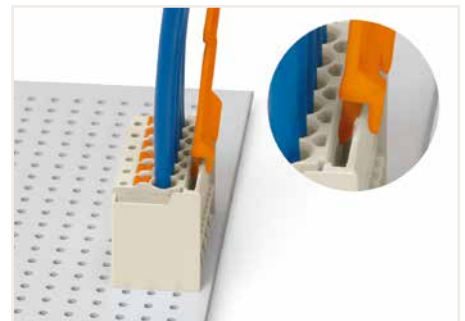


Male locking latch  
Female locking latch  
Contact bridge  
E-Cu, tin-plated header pin

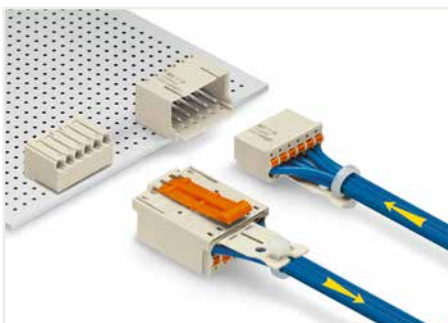
The locking latches on the male header and the female connector interlock to secure the connection.



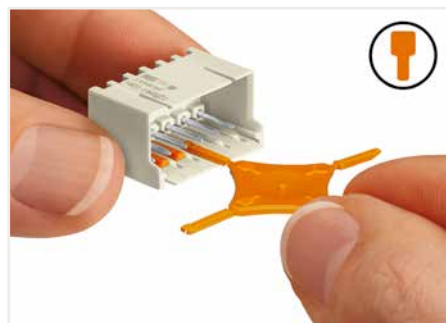
Coding a female connector (via coding key carrier and two keys for female connector, see symbol).



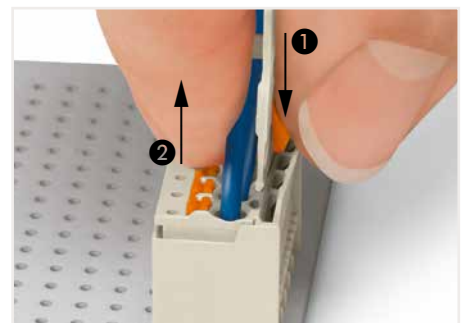
Disconnecting a female connector via unlocking tool: Plug unlocking tool into the male header's locking latch.



Easy-to-identify PCB inputs and outputs



Coding a male header (via coding key carrier and two keys for male header, see symbol).



Disconnecting female connector via sliding connector release:  
 1 Push down sliding connector release (gripping plate) to open the locking latch.  
 2 Pull out female connector from male header.

picoMAX® Pluggable Connectors

Combination Overview of Male and Female Connectors/Headers

|   |  | Male headers                                 |            |  |            |  |                   |  |
|---|--|--|------------|--|------------|--|-------------------|--|
|   |  | Item No.                                     | Pack. Unit | Item No.                                   | Pack. Unit | Item No.   | Pack. Unit        |  |
|   |  | with straight solder pins;<br>2 ... 12 poles |            | with angled solder pins;<br>2 ... 12 poles |            | for wire connections;<br>2 ... 5 poles                         |                   |  |
|   |  |  |            |  |            | for panel feedthrough connections;<br>2 ... 8 poles<br>outside |                   |  |
|   |  |  |            |  |            | inside,<br>unlocked  |                   |  |
|   |  | 2091-1402                                    | 200        | 2091-1422                                  | 200        | 2091-1522/002-000  | 200               |  |
|   |  | 2091-1412                                    | 100        | 2091-1432                                  | 100        | 2091-1528/002-000  | 50                |  |
|   |  |  |            |  |            | 0.2 ... 2.5 mm² / 24 ... 12 AWG                                |                   |  |
|   |  |  |            |  |            |  | 2091-1632/024-000 |  |
|   |  |  |            |  |            |  | 100               |  |
|   |  |  |            |  |            |  | 2091-1638/002-000 |  |
|   |  |  |            |  |            |  | 50                |  |
|   |  |  |            |  |            | outside  | inside            |  |
| Female connectors                           | for wire connections, with<br>gripping plate and sliding<br>connector release;<br>2 ... 12 poles |  |            |  |            |  |                   |  |
|   | 0.2 ... 1.5 mm² / 24 ... 14 AWG  |  |            |  |            |  |                   |  |
|   | 2091-1102/002-000  | 100  |            |  |            |  |                   |  |
|   | 2091-1112/002-000  | 50   |            |  |            |  |                   |  |
|   | for wire connections, with<br>gripping plate;<br>2 ... 12 poles                                  |  |            |  |            |  |                   |  |
|   | 0.2 ... 1.5 mm² / 24 ... 14 AWG  |  |            |  |            |  |                   |  |
|   | 2091-1102  | 200  |            |  |            |  |                   |  |
|   | 2091-1112  | 100  |            |  |            |  |                   |  |
|   | for wire connections;<br>2 ... 12 poles  |  |            |  |            |  |                   |  |
|   | 0.2 ... 1.5 mm² / 24 ... 14 AWG  |  |            |  |            |  |                   |  |
| 2091-1122                                   | 200  |  |            |  |            |  |                   |  |
| 2091-1132                                   | 100  |  |            |  |            |  |                   |  |
| with straight solder pins;<br>2 ... 8 poles |  |  |            |  |            |  |                   |  |
| 2091-1302                                   | 200  |  |            |  |            |  |                   |  |
| 2091-1308                                   | 100  |  |            |  |            |  |                   |  |
| with angled solder pins;<br>2 ... 8 poles   |  |  |            |  |            |  |                   |  |
| 2091-1322                                   | 200  |  |            |  |            |  |                   |  |
| 2091-1328                                   | 100  |  |            |  |            |  |                   |  |

3



Disconnection: Open locking latches via unlocking tool (Item No. 2092-1630).

All data refers to 3.5 mm pin spacing.



This combination of male and female connectors/headers is allowed.

Item numbers for other pin spacing dimensions:  
 Pin spacing 3.5 mm: 2091-1xxx (160 V / 10 A)  
 Pin spacing 5 mm: 2092-1xxx (320 V / 16 A)  
 Pin spacing 7.5 mm: 2092-3xxx (630 V / 16 A)

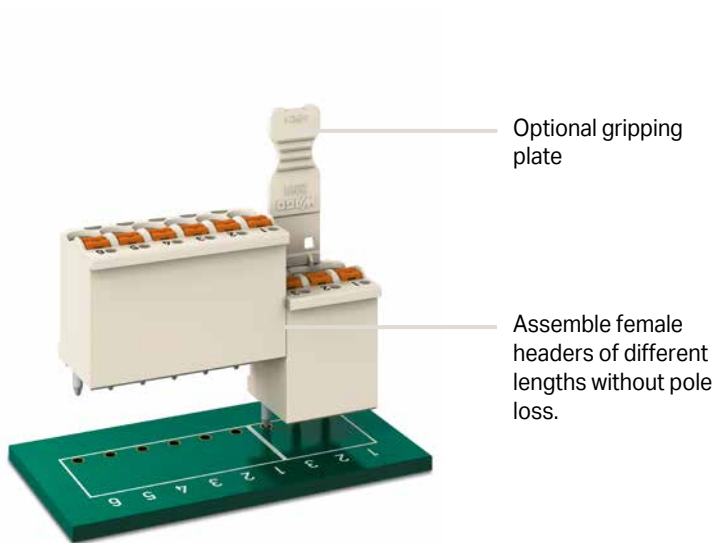


This combination of male and female connectors/headers is not allowed.

*picoMAX*® eCOM Connectors

## Description and Installation

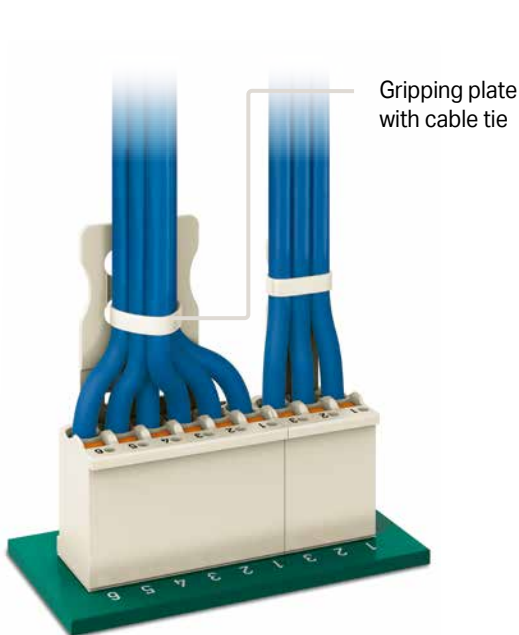
1. Place and solder the female headers as marked on the PCB.



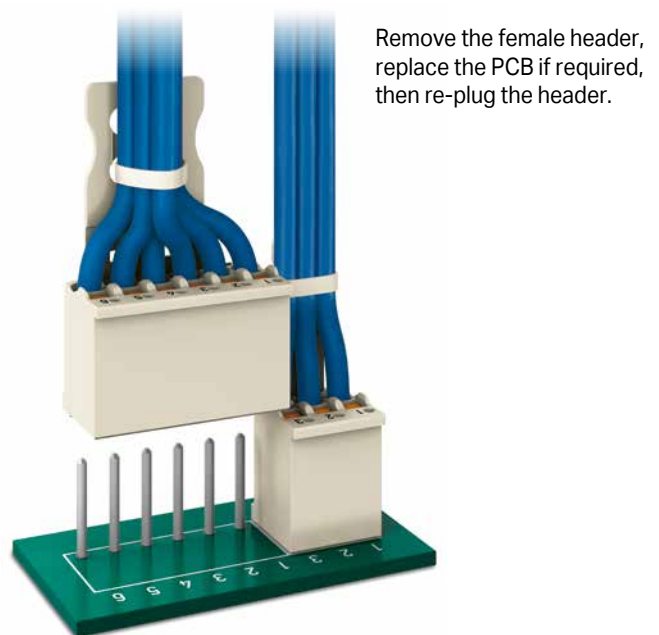
WAGO's *picoMAX*® eCOM Female Headers are delivered with solder pins so they can be directly soldered to a PCB and then wired just as PCB terminal blocks are.

The Push-in CAGE CLAMP® S connection allows solid, stranded and fine-stranded conductors to be terminated via push-buttons. Solid and ferruled conductors are terminated by simply pushing them into unit. For simplified maintenance, the female headers can be removed without altering the wiring and then plugged onto the spare PCB.

2. Wired female headers










3. During maintenance



3

## picoMAX® eCOM Connectors System Overview for Female Headers with Wire Connection

| picoMAX® eCOM Connectors; Female headers with wire connection                       |   |   |   |   |   |   |          |            |
|---|---|---|---|---|---|---|----------|------------|
| Pin spacing: 3.5 mm; 2 ... 12 poles   |   | Pin spacing: 5 mm; 2 ... 12 poles   |   | Pin spacing: 7.5 mm; 2 ... 5 poles  |   |   |          |            |
| Item No.  | Pack. Unit  | Item No.  | Pack. Unit  | Item No.  | Pack. Unit  |   |          |            |
| <b>with straight solder pins; without gripping plate</b>                            |   |   |   |   |   |   |          |            |
|    |   |    |   |    |   |   |          |            |
| 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG   |   | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG   |   | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG   |   |   |          |            |
| 2091-1172   | 200   | 2092-1172   | 200   | 2092-3172   | 100   |   |          |            |
| 2091-1182   | 100   | 2092-1182   | 100   | 2092-3175   | 100   |   |          |            |
| <b>with straight solder pins; with gripping plate</b>                               |   |   |   |   |   |   |          |            |
|    |   |    |   |    |   |   |          |            |
| 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG   |   | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG   |   | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG   |   |   |          |            |
| 2091-1152   | 100   | 2092-1152   | 100   | 2092-3152   | 100   |   |          |            |
| 2091-1162   | 50  | 2092-1162   | 50  | 2092-3155   | 100   |   |          |            |
| <b>with angled solder pins; without gripping plate</b>                              |   |   |   |   |   |   |          |            |
|    |   |    |   |    |   |   |          |            |
| 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG   |   | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG   |   | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG   |   |   |          |            |
| 2091-1372   | 200   | 2092-1372   | 200   | 2092-3372   | 100   |   |          |            |
| 2091-1382   | 100   | 2092-1382   | 100   | 2092-3375   | 100   |   |          |            |
| <b>with angled solder pins; with gripping plate</b>                                 |   |   |   |   |   |   |          |            |
|  |   |  |   |  |   |   |          |            |
| 0.2 ... 1.5 mm <sup>2</sup> / 24 ... 14 AWG   |   | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG   |   | 0.2 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG   |   |   |          |            |
| 2091-1352   | 100   | 2092-1352   | 100   | 2092-3352   | 100   |   |          |            |
| 2091-1362   | 50  | 2092-1362   | 50  | 2092-3355   | 100   |   |          |            |
| <b>Gripping plate for retrofitting</b>  |   |   |   |   |   |   |          |            |
|  |   |  |   |  |   |   |          |            |
| 2091-1600   | 100   | 2092-1600   | 100   | 2092-3600   | 100   |   |          |            |
| 2091-1603   | 100   | 2092-1603   | 100   | 2092-3603   | 100   |   |          |            |
| <b>Gripping plate with sliding connector release for retrofitting</b>               |   |   |   |   |   |   |          |            |
|  |   |  |   |  |   |   |          |            |
| 2091-1600/002-000   | 100   | 2092-1600/002-000   | 100   | 2092-3600/002-000   | 100   |   |          |            |
| 2091-1603/002-0   | 100   | 2092-1603/002-000   | 100   | 2092-3603/002-000   | 100   |   |          |            |
| <b>Accessories</b>  |   |   |   |   |   |   |          |            |
|   | Item No.  | Pack. Unit  |   | Item No.  | Pack. Unit  |   | Item No. | Pack. Unit |
|  | Operating tool with a partially insulated shaft; Type 1; Blade (2.5 x 0.4) mm |   | Unlocking tool for female headers without gripping plate or sliding connector release |   | Test pin; 1 mm Ø; with solder connection for test cable |   |          |            |
|   | 210-719   | 50  | 2092-1630   | 100   | 735-500   | 1 | 859-500  | 1          |







3





## WAGO Field-Wiring Terminal Blocks for Lighting

## WAGO Field-Wiring Terminal Blocks for Lighting

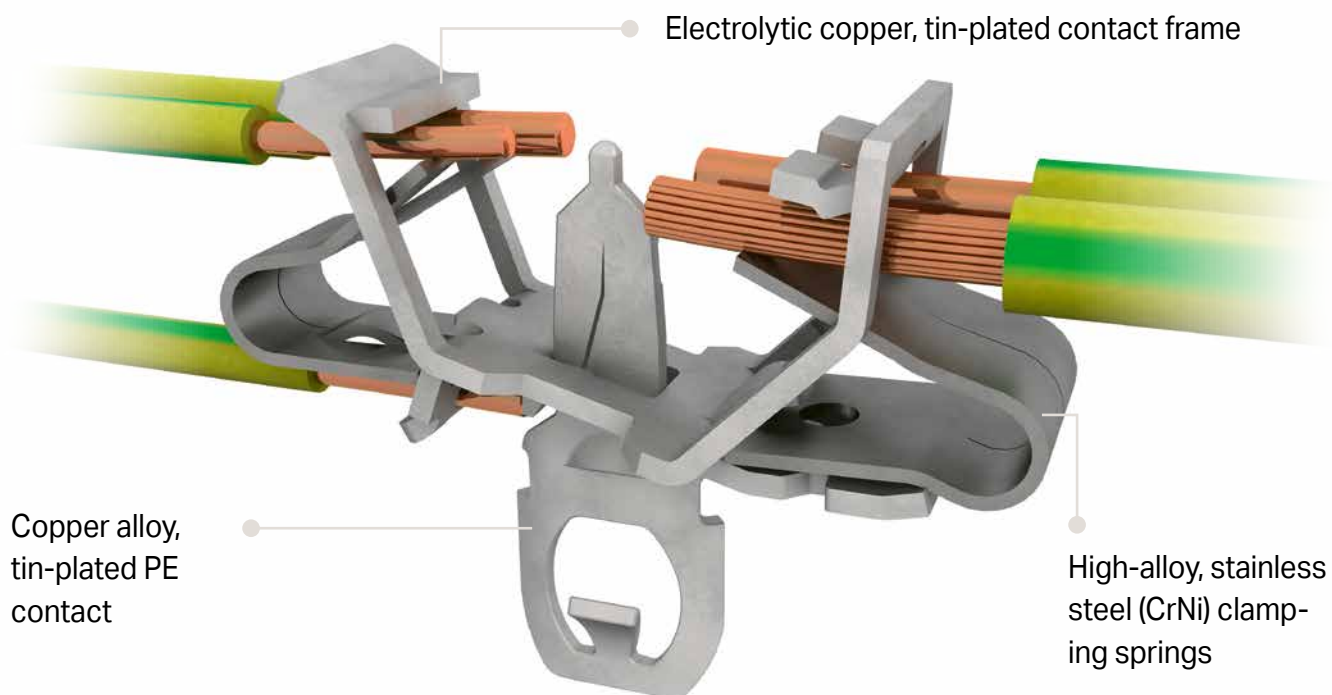
|   | Series                   | Page |
|---|--------------------------|------|
|    | 294                      | 118  |
|    | 272                      | 132  |
|    | 862                      | 138  |
|    | 260<br>261<br>262<br>264 | 142  |
|   | 264                      | 160  |
|  | 2050<br>2250             | 162  |

## Connect Lighting and Equipment Worldwide

### 294 Series

## Contact Technology

4



### Internal connection:

PUSH WIRE® for internal wiring with solid conductors

#### EUROPE

1 x 0.5 ... 2.5 mm<sup>2</sup>; "s"

1 x 0.5 ... 1.5 mm<sup>2</sup>; "s"

1 x 0.5 ... 0.75 mm<sup>2</sup>; "s"

#### AMERICA

1 x 18 ... 14 AWG; "s"

1 x 18 ... 16 AWG; "s"

1 x 18 AWG; "s"

#### JAPAN

1 x Ø 0.8 ... 1.6 mm; "s"

1 x Ø 0.8 ... 1.0 mm; "s"

1 x Ø 0.8 mm; "s"

### External connection:

Push-in CAGE CLAMP® for power connection of all conductor types

#### EUROPE

2 x 0.5 ... 2.5 mm<sup>2</sup>; "s; st; f-st"

#### AMERICA

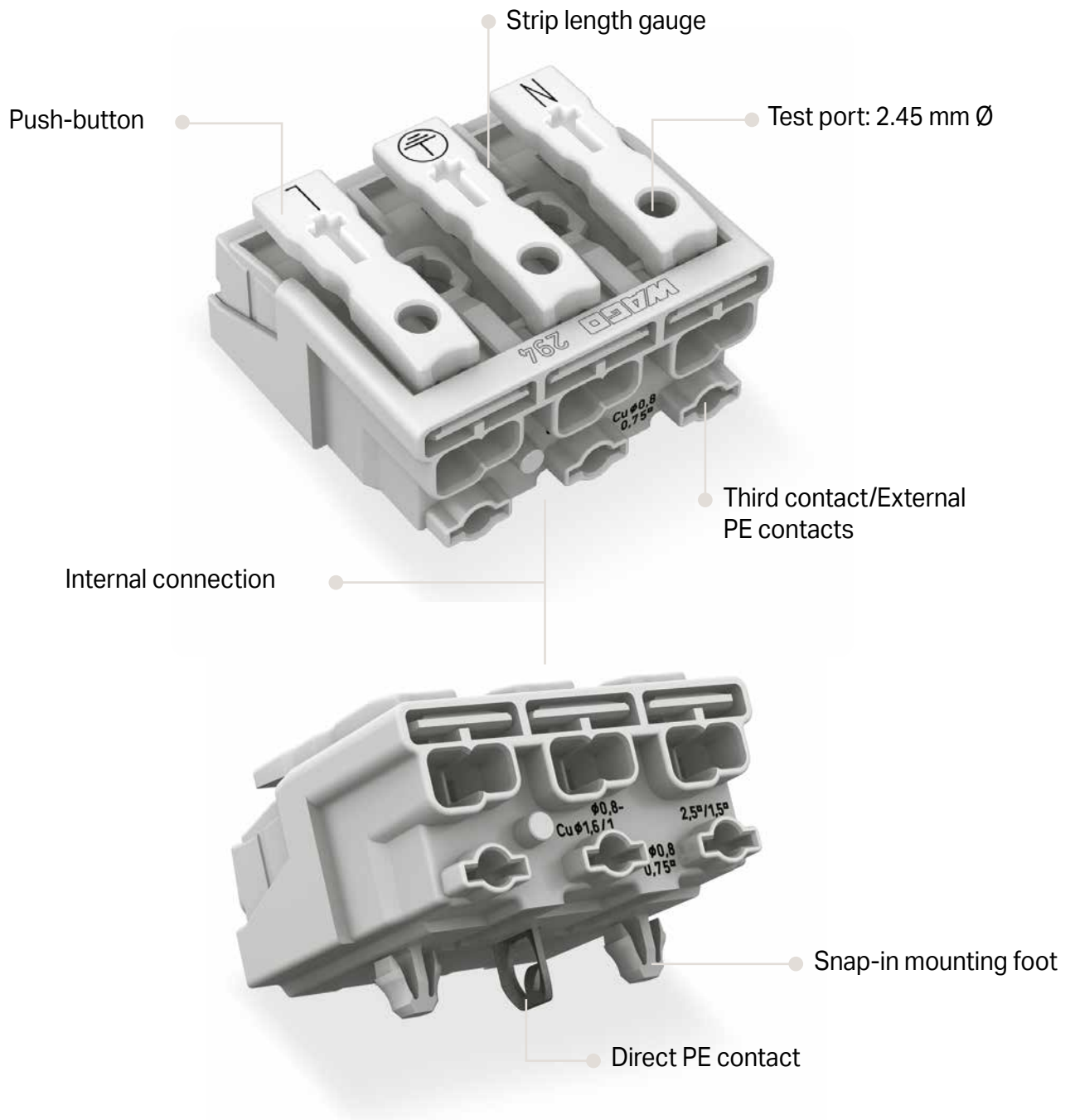
2 x 18 ... 12 AWG; "s"

2 x 18 ... 14 AWG; "st; f-st"

#### JAPAN

2 x Ø 0.8 ... 2.0 mm; "s"

2 x 0.5 ... 2.0 mm<sup>2</sup>; "st; f-st"



## 294 Series ► with two snap-in mounting feet



Without PE contact



With direct PE contact



With screw-type PE contact



With snap-in PE contact









With angled snap-in PE contact

| Pole No. | Marking       | Item No.          | Item No. | Item No. | Item No. | Item No. |
|----------|---------------|-------------------|----------|----------|----------|----------|
| 2        | plain         | 294-5002          | -        | -        | -        | -        |
|          | N L           | 294-5012          | -        | -        | -        | -        |
|          | N' L'         | 294-5022          | -        | -        | -        | -        |
|          | DA- DA+       | 294-5032          | -        | -        | -        | -        |
|          | - +           | 294-5072          | -        | -        | -        | -        |
|          | 1 N           | 294-5052          | -        | -        | -        | -        |
|          | 2 1           | 294-5042          | -        | -        | -        | -        |
| 3        | plain         | 294-5003          | -        | -        | -        | -        |
|          | N ⊕ L         | 294-5013          | 294-5113 | 294-5413 | 294-5213 | 294-5313 |
|          | N' ⊕ L'       | 294-5023          | 294-5123 | 294-5423 | 294-5223 | 294-5323 |
|          | 1 ⊕ N         | 294-5053          | 294-5153 | 294-5453 | 294-5253 | 294-5353 |
|          | 3 2 1         | 294-5043          | -        | -        | -        | -        |
|          | N E L         | 294-5093/3025-000 | -        | -        | -        | -        |
| 4        | plain         | 294-5004          | -        | -        | -        | -        |
|          | 1/L' 2/L ⊕ N  | 294-5024          | 294-5124 | 294-5424 | 294-5224 | 294-5324 |
|          | 1 2 ⊕ N       | 294-5014          | 294-5114 | 294-5414 | 294-5214 | 294-5314 |
|          | 4 3 2 1       | 294-5044          | -        | -        | -        | -        |
|          | 1/L' 2/L E N  | 294-5094/4025-000 | -        | -        | -        | -        |
| 5        | plain         | 294-5005          | -        | -        | -        | -        |
|          | L3 L2 L1 ⊕ N  | 294-5015          | -        | 294-5415 | 294-5215 | 294-5315 |
|          | L' N' L ⊕ N   | 294-5025          | -        | 294-5425 | 294-5225 | 294-5325 |
|          | DA+ DA- L ⊕ N | 294-5035          | -        | 294-5435 | 294-5235 | 294-5335 |
|          | DA- N ⊕ L DA+ | 294-5075          | 294-5175 | 294-5475 | 294-5275 | 294-5375 |
|          | 3 N ⊕ 1 2     | 294-5055          | 294-5155 | 294-5455 | 294-5255 | 294-5355 |
|          | 5 4 3 2 1     | 294-5045          | -        | -        | -        | -        |
|          | DA+ DA- L E N | 294-5095/5025-000 | -        | -        | -        | -        |
|          | L3 L2 L1 E N  | 294-5095/5026-000 | -        | -        | -        | -        |
|          | L' N' L E N   | 294-5095/5027-000 | -        | -        | -        | -        |

4

## 294 Series ► without snap-in mounting feet

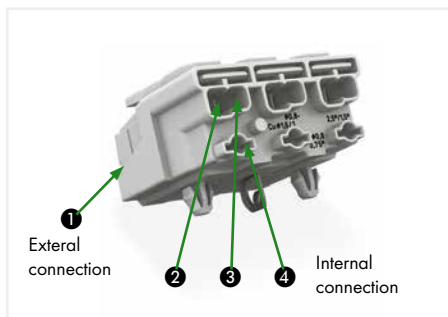
| Pole No.  | Marking         | Item No.          | Without PE contact | With direct PE contact | With screw-type PE contact | With snap-in PE contact | With angled snap-in PE contact |
|---|-----------------|-------------------|--------------------|------------------------|----------------------------|-------------------------|--------------------------------|
|    | plain           | 294-4002          | -                  | -                      | -                          | -                       | -                              |
|   | N L             | 294-4012          | -                  | -                      | -                          | -                       | -                              |
|   | N' L'           | 294-4022          | -                  | -                      | -                          | -                       | -                              |
|   | DA- DA+         | 294-4032          | -                  | -                      | -                          | -                       | -                              |
|   | - +             | 294-4072          | -                  | -                      | -                          | -                       | -                              |
|   | 1 N             | 294-4052          | -                  | -                      | -                          | -                       | -                              |
|   | 2 1             | 294-4042          | -                  | -                      | -                          | -                       | -                              |
|    | plain           | 294-4003          | -                  | -                      | -                          | -                       | -                              |
|   | N ⊕ L           | 294-4013          | -                  | 294-4413               | 294-4213                   | 294-4313                |                                |
|   | N' ⊕ L'         | 294-4023          | -                  | 294-4423               | 294-4223                   | 294-4323                |                                |
|   | 1 ⊕ N           | 294-4053          | -                  | 294-4453               | 294-4253                   | 294-4353                |                                |
|   | 3 2 1           | 294-4043          | -                  | -                      | -                          | -                       |                                |
|   | N E L           | 294-4093/3025-000 | -                  | -                      | -                          | -                       |                                |
|   | -               | -                 | -                  | -                      | -                          | -                       |                                |
|   | plain           | 294-4004          | -                  | -                      | -                          | -                       |                                |
|   | 1/L' 2/L ⊕ N    | 294-4024          | -                  | 294-4424               | 294-4224                   | 294-4324                |                                |
|   | 1 2 ⊕ N         | 294-4014          | -                  | 294-4414               | 294-4214                   | 294-4314                |                                |
|   | 4 3 2 1         | 294-4044          | -                  | -                      | -                          | -                       |                                |
|   | 1/L' 2/L E N    | 294-4094/4025-000 | -                  | -                      | -                          | -                       |                                |
|  | plain           | 294-4005          | -                  | -                      | -                          | -                       |                                |
|   | L3 L2 L1 ⊕ N    | 294-4015          | -                  | 294-4415               | 294-4215                   | 294-4315                |                                |
|   | L' L' N' L' ⊕ N | 294-4025          | -                  | 294-4425               | 294-4225                   | 294-4325                |                                |
|   | DA+ DA- L ⊕ N   | 294-4035          | -                  | 294-4435               | 294-4235                   | 294-4335                |                                |
|   | DA- N ⊕ L DA+   | 294-4075          | -                  | 294-4475               | 294-4275                   | 294-4375                |                                |
|   | 3 N ⊕ 1 2       | 294-4055          | -                  | 294-4455               | 294-4255                   | 294-4355                |                                |
|   | 5 4 3 2 1       | 294-4045          | -                  | -                      | -                          | -                       |                                |
|   | DA+ DA- L E N   | 294-4095/5025-000 | -                  | -                      | -                          | -                       |                                |
|   | L3 L2 L1 E N    | 294-4095/5026-000 | -                  | -                      | -                          | -                       |                                |
|   | L' L' N' L' E N | 294-4095/5027-000 | -                  | -                      | -                          | -                       |                                |
|   | -               | -                 | -                  | -                      | -                          | -                       |                                |
|  | plain           | 294-4006          | -                  | -                      | -                          | -                       |                                |
|   | -               | -                 | -                  | -                      | -                          | -                       |                                |
|  | plain           | 294-4007          | -                  | -                      | -                          | -                       |                                |
|   | -               | -                 | -                  | -                      | -                          | -                       |                                |



## Field-Wiring Terminal Block 294 Series



- External connection of solid, stranded and fine-stranded conductors
- Universal conductor termination (AWG, metric)
- Third contact located at the bottom of internal connection end
- Strain relief plate can be retrofitted



4

External  
connectionInternal  
connection

### Electrical Data

| Ratings per               | IEC/EN 60998-1 | IEC/EN 60998-2-2 |
|---------------------------|----------------|------------------|
| Overvoltage category      | III            | II               |
| Pollution degree          | 2              | 2                |
| Rated voltage             | 500 V          | 500 V            |
| Rated surge voltage       | 4 kV           | 4 kV             |
| Rated current             | 24 A           | 24 A             |
| Temperature specification | T85            | T85              |

### Connection Data for External Connection

|  |                                 |
|--|---------------------------------|
| Connection technology                                    | Push-in CAGE CLAMP®             |
| Strip length   | 8 ... 9 mm / 0.31 ... 0.35 inch |
| Conductor range (conductor termination ❶)                |                                 |
| Solid, stranded or fine-stranded conductor               | 2 x 0.5 ... 2.5 mm <sup>2</sup> |
| Solid, stranded or fine-stranded conductor; with ferrule | 2 x 0.5 ... 1.5 mm <sup>2</sup> |
| Solid conductor  | 2 x 18 ... 12 AWG               |
| Fine- and stranded conductors                            | 2 x 18 ... 14 AWG               |

### Connection Data for Internal Connection

|   |   |
|---|---|
| Connection technology                             | PUSH WIRE®                                  |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inch             |
| Conductor range (conductor termination ❷)         |   |
| Solid conductor                                   | 0.5 ... 2.5 mm <sup>2</sup> / 18 ... 14 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.5 ... 1.5 mm <sup>2</sup>                 |
| Fine-stranded conductor; with insulated ferrule   | 0.5 ... 1 mm <sup>2</sup>                   |
| Conductor range (conductor termination ❸)         |   |
| Solid conductor                                   | 0.5 ... 1.5 mm <sup>2</sup> / 18 ... 16 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.5 ... 1 mm <sup>2</sup>                   |
| Fine-stranded conductor; with insulated ferrule   | 0.5 ... 0.75 mm <sup>2</sup>                |
| Conductor range (conductor termination ❹)         |   |
| Solid conductor                                   | 0.5 ... 0.75 mm <sup>2</sup> / 18 AWG       |

### Material Data

|                             |   |
|-----------------------------|---|
| Material group              | IIIa                                      |
| Insulation material         | Polycarbonate (PC)                        |
| Flammability class per UL94 | V0  |
| Temperature stability       | Relative Temperature Index (RTI) of 120°C |
| Processing temperature      | -5 ... +40 °C                             |
| Storage temperature         | -35 ... +85 °C                            |
| Clamping spring material    | Chrome nickel spring steel (CrNi)         |
| Contact material            | Electrolytic copper (E <sub>cu</sub> )    |
| Contact plating             | Tin-plated                                |

16 mm-high versions are available upon request.

## Field-Wiring Terminal Block ▶ 2-pole 294 Series

Without PE contact



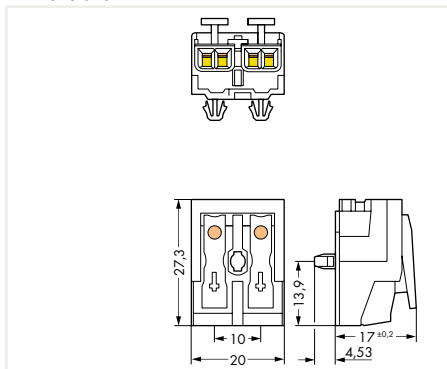
Versions with snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| plain   | 294-5002 | 1000       |
| N L     | 294-5012 | 1000       |
| N' L'   | 294-5022 | 1000       |
| DA- DA+ | 294-5032 | 1000       |
| - +     | 294-5072 | 1000       |
| 2 1     | 294-5042 | 1000       |
| 1 N     | 294-5052 | 1000       |

Versions without snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| plain   | 294-4002 | 1000       |
| N L     | 294-4012 | 1000       |
| N' L'   | 294-4022 | 1000       |
| DA- DA+ | 294-4032 | 1000       |
| - +     | 294-4072 | 1000       |
| 2 1     | 294-4042 | 1000       |
| 1 N     | 294-4052 | 1000       |

Dimensions in mm



# Field-Wiring Terminal Block ▶ 3-pole 294 Series

Without PE contact



With direct PE contact



With screw-type PE contact



4

Versions with snap-in mounting feet

| Marking | Item No.          | Pack. Unit |
|---------|-------------------|------------|
| plain   | 294-5003          | 500        |
| N ⊕ L   | 294-5013          | 500        |
| N' ⊕ L' | 294-5023          | 500        |
| 1 ⊕ N   | 294-5053          | 500        |
| 3 2 1   | 294-5043          | 500        |
| N E L   | 294-5093/3025-000 | 500        |

Versions with snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| N ⊕ L   | 294-5113 | 500        |
| N' ⊕ L' | 294-5123 | 500        |
| 1 ⊕ N   | 294-5153 | 500        |

Versions with snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| N ⊕ L   | 294-5413 | 500        |
| N' ⊕ L' | 294-5423 | 500        |
| 1 ⊕ N   | 294-5453 | 500        |

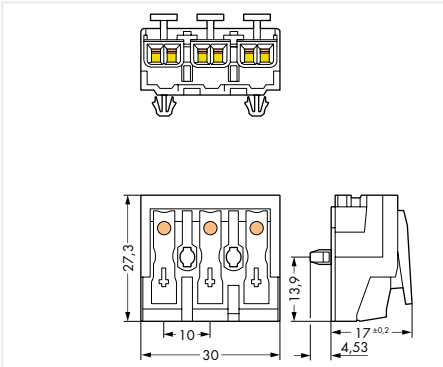
Versions without snap-in mounting feet

| Marking | Item No.          | Pack. Unit |
|---------|-------------------|------------|
| plain   | 294-4003          | 500        |
| N ⊕ L   | 294-4013          | 500        |
| N' ⊕ L' | 294-4023          | 500        |
| 1 ⊕ N   | 294-4053          | 500        |
| 3 2 1   | 294-4043          | 500        |
| N E L   | 294-4093/3025-000 | 500        |

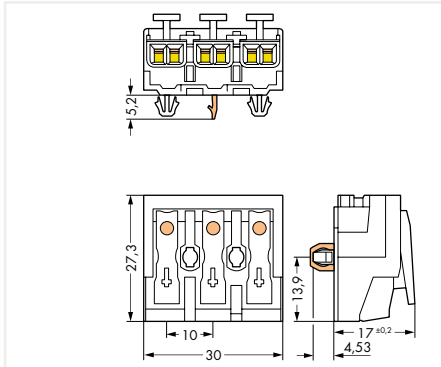
Versions without snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| N ⊕ L   | 294-4413 | 500        |
| N' ⊕ L' | 294-4423 | 500        |
| 1 ⊕ N   | 294-4453 | 500        |

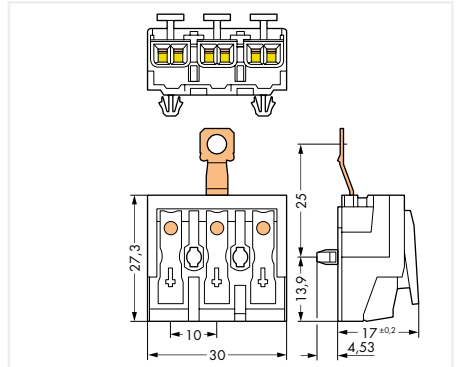
Dimensions in mm



Dimensions in mm

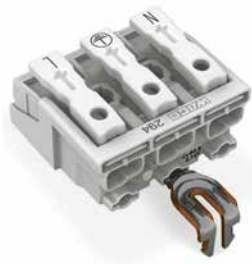


Dimensions in mm

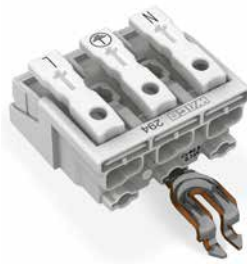


# Field-Wiring Terminal Block ▶ 3-pole 294 Series

With snap-in PE contact



With angled snap-in PE contact



Versions with snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| N ⊕ L   | 294-5213 | 500        |
| N' ⊕ L' | 294-5223 | 500        |
| 1 ⊕ N   | 294-5253 | 500        |

Versions with snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| N ⊕ L   | 294-5313 | 500        |
| N' ⊕ L' | 294-5323 | 500        |
| 1 ⊕ N   | 294-5353 | 500        |

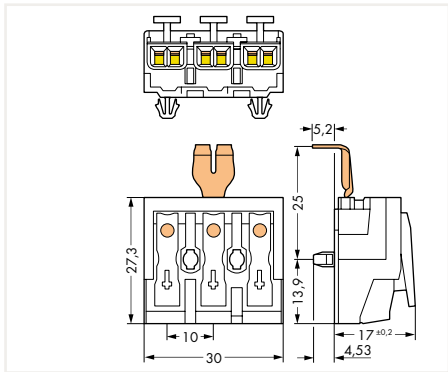
Versions without snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| N ⊕ L   | 294-4213 | 500        |
| N' ⊕ L' | 294-4223 | 500        |
| 1 ⊕ N   | 294-4253 | 500        |

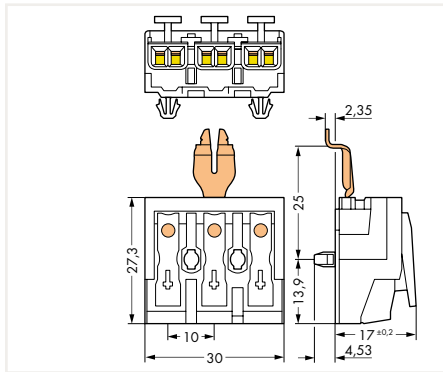
Versions without snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| N ⊕ L   | 294-4313 | 500        |
| N' ⊕ L' | 294-4323 | 500        |
| 1 ⊕ N   | 294-4353 | 500        |

Dimensions in mm



Dimensions in mm



# Field-Wiring Terminal Block ▶ 4-pole 294 Series

Without PE contact



With direct PE contact



With screw-type PE contact



4

Versions with snap-in mounting feet

| Marking      | Item No.          | Pack. Unit |
|--------------|-------------------|------------|
| plain        | 294-5004          | 500        |
| 1/L' 2/L ⊕ N | 294-5024          | 500        |
| 1 2 ⊕ N      | 294-5014          | 500        |
| 4 3 2 1      | 294-5044          | 500        |
| 1/L' 2/L E N | 294-5094/4025-000 | 500        |

Versions with snap-in mounting feet

| Marking      | Item No. | Pack. Unit |
|--------------|----------|------------|
| 1/L' 2/L ⊕ N | 294-5124 | 500        |
| 1 2 ⊕ N      | 294-5114 | 500        |

Versions with snap-in mounting feet

| Marking      | Item No. | Pack. Unit |
|--------------|----------|------------|
| 1/L' 2/L ⊕ N | 294-5424 | 500        |
| 1 2 ⊕ N      | 294-5414 | 500        |

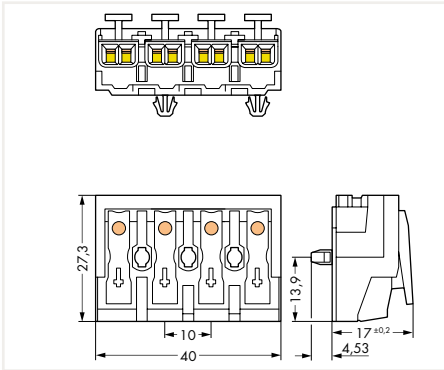
Versions without snap-in mounting feet

| Marking      | Item No.          | Pack. Unit |
|--------------|-------------------|------------|
| plain        | 294-4004          | 500        |
| 1/L' 2/L ⊕ N | 294-4024          | 500        |
| 1 2 ⊕ N      | 294-4014          | 500        |
| 4 3 2 1      | 294-4044          | 500        |
| 1/L' 2/L E N | 294-4094/4025-000 | 500        |

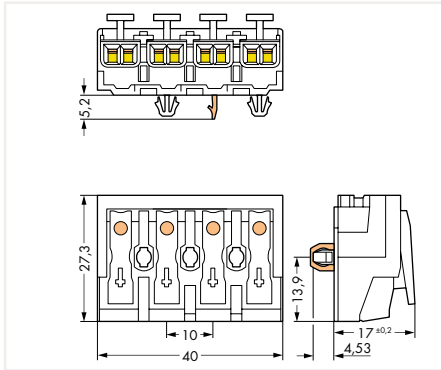
Versions without snap-in mounting feet

| Marking      | Item No. | Pack. Unit |
|--------------|----------|------------|
| 1/L' 2/L ⊕ N | 294-4424 | 500        |
| 1 2 ⊕ N      | 294-4414 | 500        |

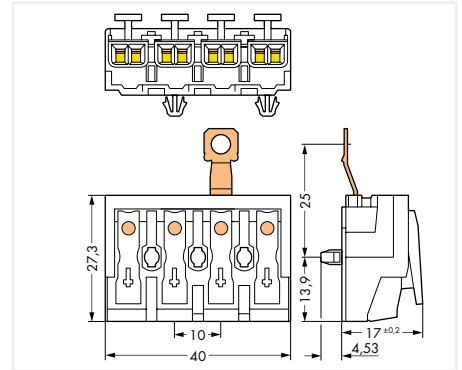
Dimensions in mm



Dimensions in mm



Dimensions in mm



# Field-Wiring Terminal Block ▶ 4-pole 294 Series

With snap-in PE contact



With angled snap-in PE contact



Versions with snap-in mounting feet

| Marking      | Item No. | Pack. Unit |
|--------------|----------|------------|
| 1/L' 2/L ⊕ N | 294-5224 | 500        |
| 1 2 ⊕ N      | 294-5214 | 500        |

Versions with snap-in mounting feet

| Marking      | Item No. | Pack. Unit |
|--------------|----------|------------|
| 1/L' 2/L ⊕ N | 294-5324 | 500        |
| 1 2 ⊕ N      | 294-5314 | 500        |

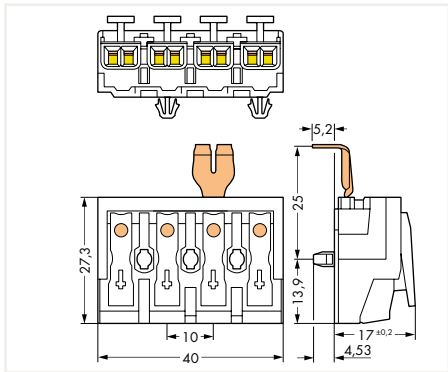
Versions without snap-in mounting feet

| Marking      | Item No. | Pack. Unit |
|--------------|----------|------------|
| 1/L' 2/L ⊕ N | 294-4224 | 500        |
| 1 2 ⊕ N      | 294-4214 | 500        |

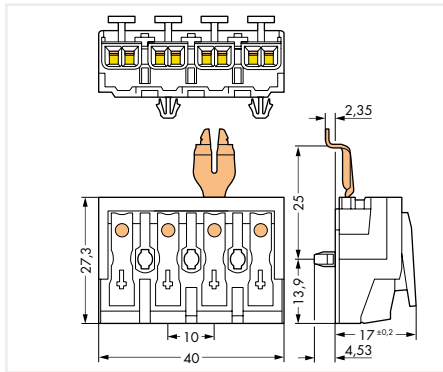
Versions without snap-in mounting feet

| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| N ⊕ L   | 294-4324 | 500        |
| N' ⊕ L' | 294-4314 | 500        |

Dimensions in mm



Dimensions in mm

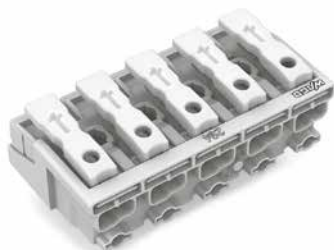


4



# Field-Wiring Terminal Block ▶ 5-pole 294 Series

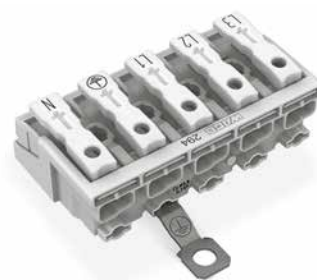
Without PE contact



With direct PE contact



With screw-type PE contact



Versions with snap-in mounting feet

| Marking       | Item No.          | Pack. Unit |
|---------------|-------------------|------------|
| plain         | 294-5005          | 250        |
| L3 L2 L1 ⊕ N  | 294-5015          | 250        |
| L' N' L ⊕ N   | 294-5025          | 250        |
| DA+ DA- L ⊕ N | 294-5035          | 250        |
| DA- N ⊕ L DA+ | 294-5075          | 250        |
| 3 N ⊕ 1 2     | 294-5055          | 250        |
| 5 4 3 2 1     | 294-5045          | 250        |
| DA+ DA- L E N | 294-5095/5025-000 | 250        |
| L3 L2 L1 E N  | 294-5095/5026-000 | 250        |
| L' N' L E N   | 294-5095/5027-000 | 250        |

Versions with snap-in mounting feet

| Marking       | Item No. | Pack. Unit |
|---------------|----------|------------|
| DA- N ⊕ L DA+ | 294-5175 | 250        |
| 3 N ⊕ 1 2     | 294-5155 | 250        |

Versions with snap-in mounting feet

| Marking       | Item No. | Pack. Unit |
|---------------|----------|------------|
| L3 L2 L1 ⊕ N  | 294-5415 | 250        |
| L' N' L ⊕ N   | 294-5425 | 250        |
| DA+ DA- L ⊕ N | 294-5435 | 250        |
| DA- N ⊕ L DA+ | 294-5475 | 250        |
| 3 N ⊕ 1 2     | 294-5455 | 250        |

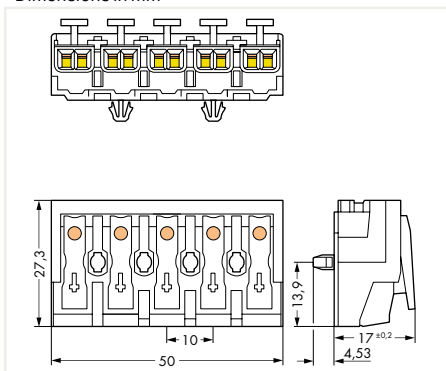
Versions without snap-in mounting feet

| Marking       | Item No.          | Pack. Unit |
|---------------|-------------------|------------|
| plain         | 294-4005          | 250        |
| L3 L2 L1 ⊕ N  | 294-4015          | 250        |
| L' N' L ⊕ N   | 294-4025          | 250        |
| DA+ DA- L ⊕ N | 294-4035          | 250        |
| DA- N ⊕ L DA+ | 294-4075          | 250        |
| 3 N ⊕ 1 2     | 294-4055          | 250        |
| 5 4 3 2 1     | 294-4045          | 250        |
| DA+ DA- L E N | 294-4095/5025-000 | 250        |
| L3 L2 L1 E N  | 294-4095/5026-000 | 250        |
| L' N' L E N   | 294-4095/5027-000 | 250        |

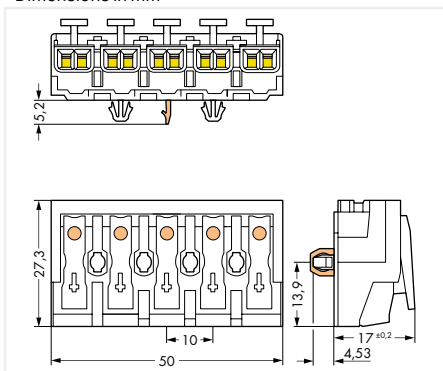
Versions without snap-in mounting feet

| Marking       | Item No. | Pack. Unit |
|---------------|----------|------------|
| L3 L2 L1 ⊕ N  | 294-4415 | 250        |
| L' N' L ⊕ N   | 294-4425 | 250        |
| DA+ DA- L ⊕ N | 294-4435 | 250        |
| DA- N ⊕ L DA+ | 294-4475 | 250        |
| 3 N ⊕ 1 2     | 294-4455 | 250        |

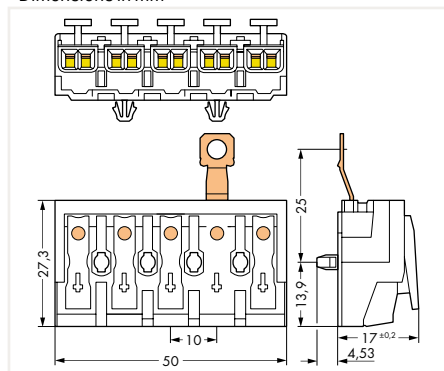
Dimensions in mm



Dimensions in mm

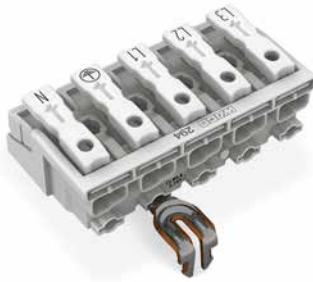


Dimensions in mm

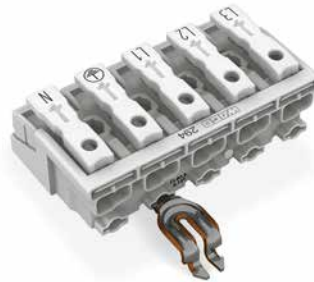


# Field-Wiring Terminal Block ▶ 5-pole 294 Series

With snap-in PE contact



With angled snap-in PE contact



Versions with snap-in mounting feet

| Marking       | Item No. | Pack. Unit |
|---------------|----------|------------|
| L3 L2 L1 ⊕ N  | 294-5215 | 250        |
| L' N' L ⊕ N   | 294-5225 | 250        |
| DA+ DA- L ⊕ N | 294-5235 | 250        |
| DA- N ⊕ L DA+ | 294-5275 | 250        |
| 3 N ⊕ 1 2     | 294-5255 | 250        |

Versions without snap-in mounting feet

| Marking       | Item No. | Pack. Unit |
|---------------|----------|------------|
| L3 L2 L1 ⊕ N  | 294-4215 | 250        |
| L' N' L ⊕ N   | 294-4225 | 250        |
| DA+ DA- L ⊕ N | 294-4235 | 250        |
| DA- N ⊕ L DA+ | 294-4275 | 250        |
| 3 N ⊕ 1 2     | 294-4255 | 250        |

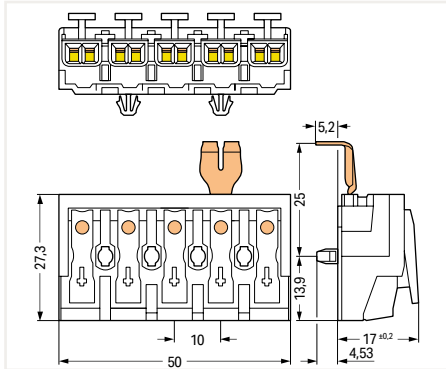
Versions with snap-in mounting feet

| Marking       | Item No. | Pack. Unit |
|---------------|----------|------------|
| L3 L2 L1 ⊕ N  | 294-5315 | 250        |
| L' N' L ⊕ N   | 294-5325 | 250        |
| DA+ DA- L ⊕ N | 294-5335 | 250        |
| DA- N ⊕ L DA+ | 294-5375 | 250        |
| 3 N ⊕ 1 2     | 294-5355 | 250        |

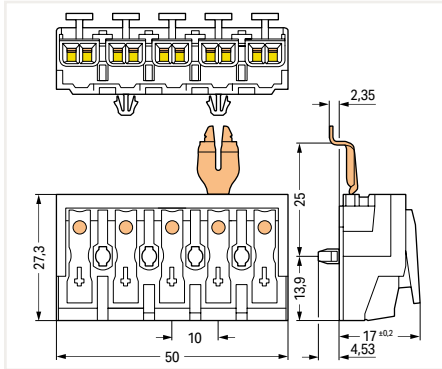
Versions without snap-in mounting feet

| Marking       | Item No. | Pack. Unit |
|---------------|----------|------------|
| L3 L2 L1 ⊕ N  | 294-4315 | 250        |
| L' N' L ⊕ N   | 294-4325 | 250        |
| DA+ DA- L ⊕ N | 294-4335 | 250        |
| DA- N ⊕ L DA+ | 294-4375 | 250        |
| 3 N ⊕ 1 2     | 294-4355 | 250        |

Dimensions in mm



Dimensions in mm



4

## Field-Wiring Terminal Block ▶ 6- and 7-pole 294 Series

6-pole; without PE contact

7-pole; without direct PE contact



Versions without snap-in mounting feet

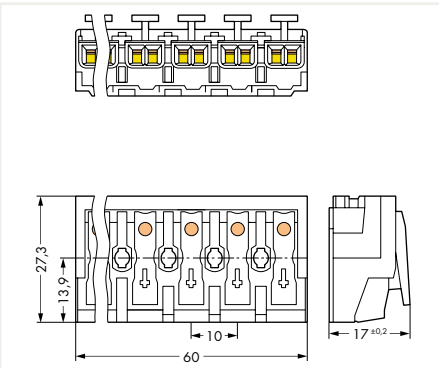
| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| plain   | 294-4006 | 200        |

Versions without snap-in mounting feet

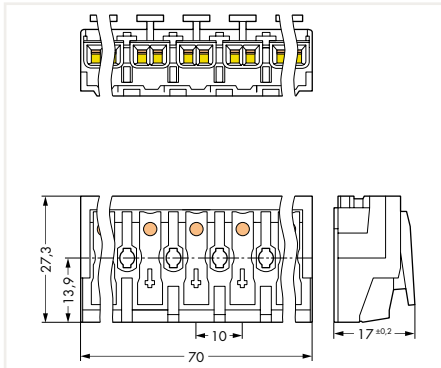
| Marking | Item No. | Pack. Unit |
|---------|----------|------------|
| plain   | 294-4007 | 200        |

4

Dimensions in mm



Dimensions in mm



## Accessories 294 Series



Strain relief plate; for sheathed cable;  
1 x 5.2 ... 12 mm outer diameter

| Color   | Item No. | Pack. Unit |
|---------|----------|------------|
| ○ white | 294-364  | 50         |



Strain relief; with snap-in mounting feet;  
for 4.5 ... 12 mm cable diameter

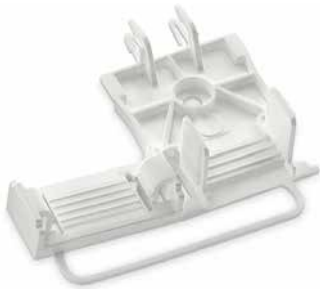
| Color   | Item No. | Pack. Unit |
|---------|----------|------------|
| ○ white | 294-370  | 500        |



Disconnection tool; removes conductors from PUSH  
WIRE® connections; for 294 Series

| Item No. | Pack. Unit |
|----------|------------|
| 206-294  | 1          |

4



Strain relief plate; for single strands: min. 3 x 0.5 mm<sup>2</sup>,  
max. 5 x 2.5 mm<sup>2</sup> or 7 x 1.5 mm<sup>2</sup>

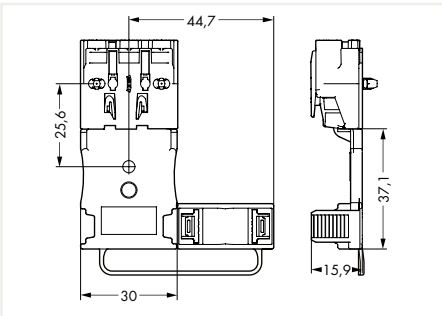
| Color   | Item No. | Pack. Unit |
|---------|----------|------------|
| ○ white | 294-384  | 50         |



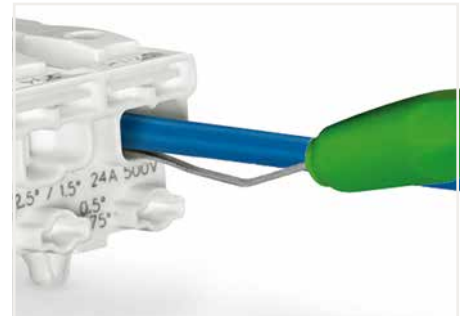
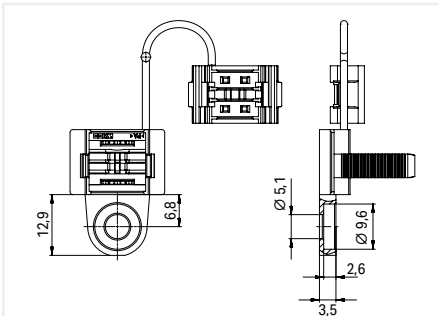
Strain relief; for screw/rivet mounting; for 4.5 ... 12 mm  
cable diameter

| Color   | Item No. | Pack. Unit |
|---------|----------|------------|
| ○ white | 294-375  | 500        |

Dimensions in mm



Dimensions in mm



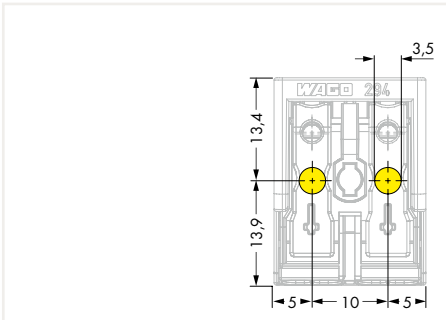
Conductor removal: Slide disconnection tool beneath the  
conductor and pull conductor out.

# Drilled-Hole Patterns for Snap-In Mounting Feet 294 Series

4

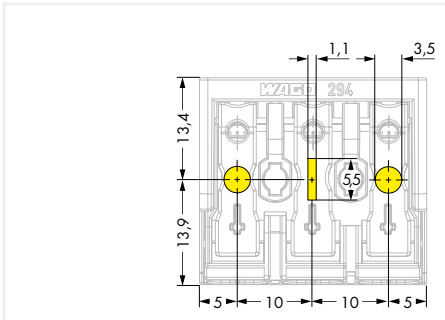
2-pole; without PE contact

Dimensions in mm



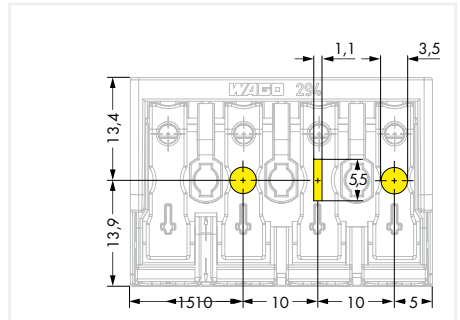
3-pole; with direct PE contact

Dimensions in mm



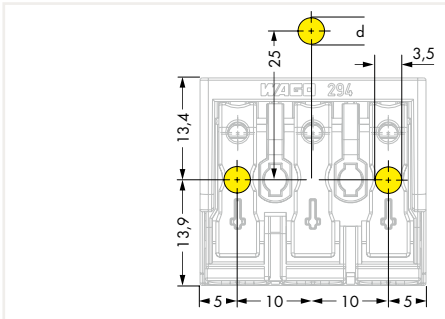
4-pole; with direct PE contact

Dimensions in mm



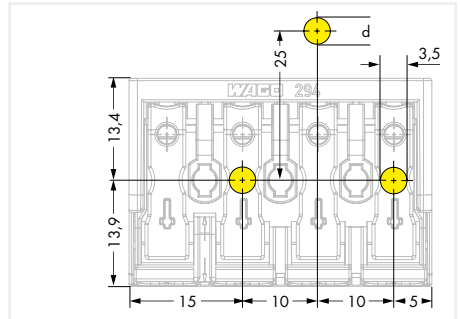
3-pole; with snap-in PE contact (d = 4.9 mm); with screw-type PE contact (d ≤ 4.1 mm)

Dimensions in mm



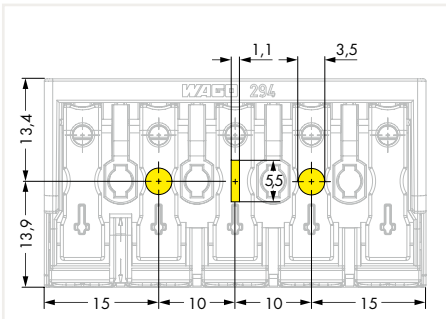
4-pole; with snap-in PE contact (d = 4.9 mm); with screw-type PE contact (d ≤ 4.1 mm)

Dimensions in mm



5-pole; with direct PE contact

Dimensions in mm

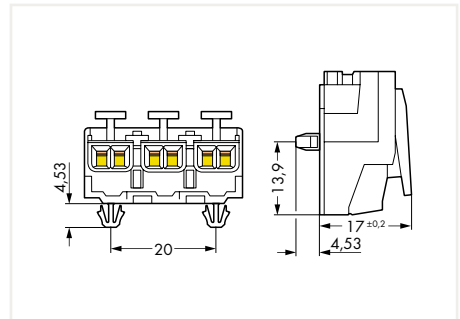


Drilled hole for snap-in mounting foot

Dimensions in mm

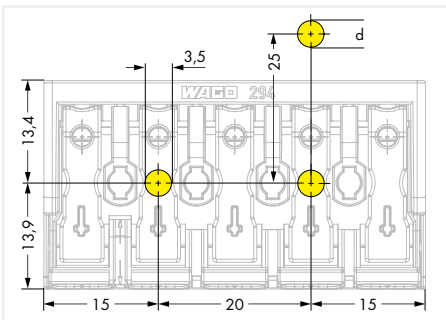
Snap-in mounting foot

Dimensions in mm



5-pole; with snap-in PE contact (d = 4.9 mm); with screw-type PE contact (d ≤ 4.1 mm)

Dimensions in mm

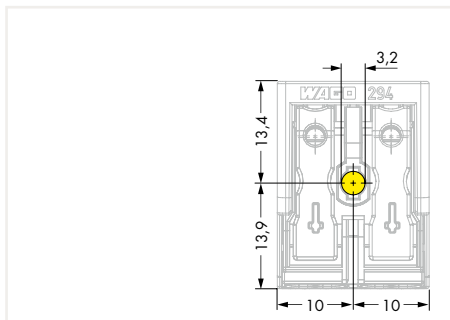


# Drilled-Hole Patterns for Screw Mounting

## 294 Series

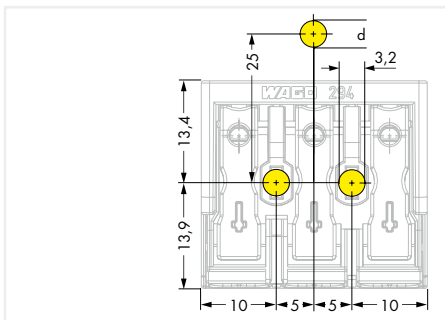
2-pole; without PE contact

Dimensions in mm



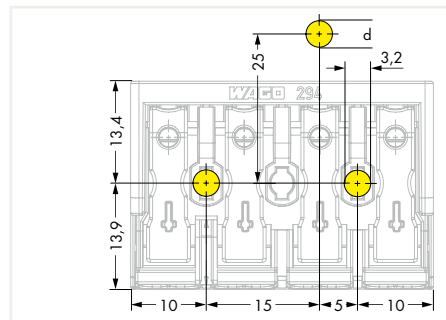
3-pole; with snap-in PE contact (d = 4.9 mm); with screw-type PE contact (d ≤ 4.1 mm)

Dimensions in mm



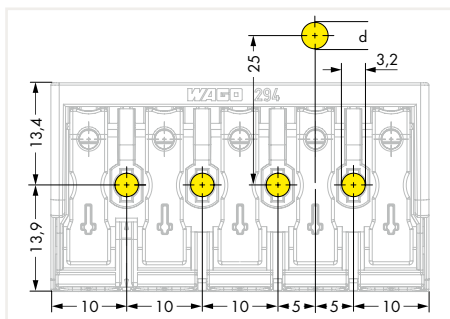
4-pole; with snap-in PE contact (d = 4.9 mm); with screw-type PE contact (d ≤ 4.1 mm)

Dimensions in mm



5-pole; with snap-in PE contact (d = 4.9 mm); with screw-type PE contact (d ≤ 4.1 mm)

Dimensions in mm



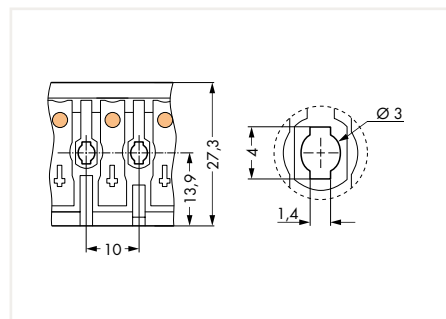
Hole for screw mount

Dimensions in mm



Mounting hole for screw

Dimensions in mm



4

**Notice:** The maximum thread diameter for self-tapping screws is 3.0 mm.  
Drilled-hole patterns at 1:1 scale



# Dividable Terminal Strip 272 Series

### Technical Data

|                                     |                            |
|-------------------------------------|----------------------------|
| 2 x 0.5 ... 1.5 mm <sup>2</sup> "s" | 2 x 20 ... 16 AWG "sol.**" |
| 2 x 0.5 ... 2.5 mm <sup>2</sup> "s" | 2 x 20 ... 14 AWG "sol.**" |
| 380 V~, size B                      | 300 V, 10 A                |
| I <sub>N</sub> 18 A                 | 300 V                      |
| 8 ... 9 mm / 0.33 inch              |                            |

### Technical Data

|                                     |                            |
|-------------------------------------|----------------------------|
| 2 x 0.5 ... 1.5 mm <sup>2</sup> "s" | 2 x 20 ... 16 AWG "sol.**" |
| 2 x 0.5 ... 2.5 mm <sup>2</sup> "s" | 2 x 20 ... 14 AWG "sol.**" |
| 380 V~, size B                      | 300 V, 10 A                |
| I <sub>N</sub> 18 A                 | 300 V                      |
| 8 ... 9 mm / 0.33 inch              |                            |



Dividable terminal strips; with additional push-wire connection for 0.5/0.75 mm<sup>2</sup> H07V-U (NYA) per pole; for screw or screwless mounting (WAGO pins); PE contact, for screw/rivet or snap-in contact (pluggable)

- \* Gray terminal block side
- \*\* White terminal block side
- ① For tool-free mounting
- ② For wiring on white terminal block side only
- ③ Factory-assembled PE contacts; (please indicate position when ordering)

### Accessories

#### Connecting pin; for plate thickness:

|  |          |         |      |
|--|----------|---------|------|
|  | 1 mm     | 271-702 | 1000 |
|  | 1 mm ①   | 271-711 | 1000 |
|  | 1.5 mm ① | 271-712 | 1000 |

#### Push-button; loose; for retrofit

|  |  |         |      |
|--|--|---------|------|
|  |  | 271-120 | 1000 |
|--|--|---------|------|

#### Assembly tool; for terminal blocks with snap-in PE contact

|  |  |         |   |
|--|--|---------|---|
|  |  | 249-100 | 1 |
|--|--|---------|---|

#### Felt-tip pen; for direct, permanent manual marking

|  |  |         |   |
|--|--|---------|---|
|  |  | 210-110 | 1 |
|--|--|---------|---|

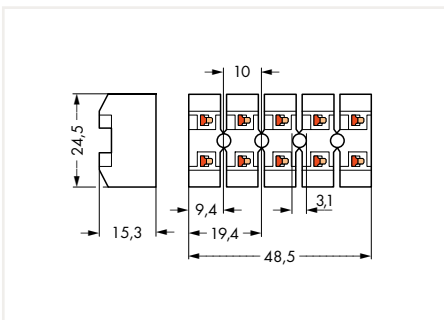
### Terminal strip; without push-buttons; white

| Pole No.                     | Item No.        | Pack. Unit |
|------------------------------|-----------------|------------|
| 1                            | 272-101         | 1000       |
| 2                            | 272-102         | 1000       |
| 3                            | 272-103         | 500        |
| 4                            | 272-104         | 500        |
| 5                            | 272-105         | 500        |
| 12                           | 272-112         | 40         |
| With screw-type PE contact ③ |                 |            |
| 3                            | 272-103/1xx-000 | 500        |
| 4                            | 272-104/1xx-000 | 500        |
| 5                            | 272-105/1xx-000 | 500        |
| With snap-in PE contact ③    |                 |            |
| 3                            | 272-103/2xx-000 | 500        |
| 4                            | 272-104/2xx-000 | 500        |
| 5                            | 272-105/2xx-000 | 500        |

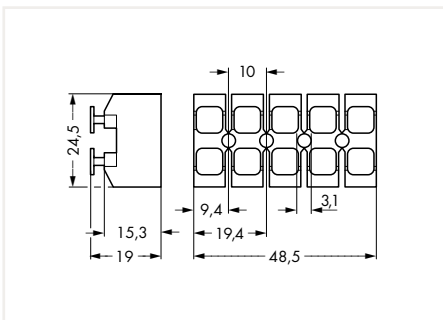
### Terminal strip; with push-buttons on both sides; white

| Pole No.                     | Item No.        | Pack. Unit |
|------------------------------|-----------------|------------|
| 1                            | 272-301         | 500        |
| 2                            | 272-302         | 500        |
| 3                            | 272-303         | 500        |
| 4                            | 272-304         | 500        |
| 5                            | 272-305         | 500        |
| 12                           | 272-312         | 40         |
| With screw-type PE contact ③ |                 |            |
| 3                            | 272-303/1xx-000 | 500        |
| 4                            | 272-304/1xx-000 | 500        |
| 5                            | 272-305/1xx-000 | 500        |
| With snap-in PE contact ③    |                 |            |
| 3                            | 272-303/2xx-000 | 500        |
| 4                            | 272-304/2xx-000 | 500        |
| 5                            | 272-305/2xx-000 | 500        |

Dimensions in mm



Dimensions in mm



# Dividable Terminal Strip 272 Series

| Technical Data                      |                             |
|-------------------------------------|-----------------------------|
| 2 x 0.5 ... 1.5 mm <sup>2</sup> "s" | 2 x 20 ... 16 AWG "sol."**  |
| 2 x 0.5 ... 2.5 mm <sup>2</sup> "s" | 2 x 20 ... 14 AWG "sol."*** |
| 380 V~, size B                      | 300 V, 10 A                 |
| I <sub>N</sub> 18 A                 | 300 V                       |
| 8 ... 9 mm / 0.33 inch              |                             |



Mounting holes for PE contacts  
(PE contact for screw/rivet mounting)

| Terminal strip; with standard marking; without push-buttons; white |                 |                 |            |
|--|-----------------|-----------------|------------|
| Pole No.   | Marking         | Item No.        | Pack. Unit |
| 1  | L1, N           | 272-102/001-000 | 1000       |
| 2  | , N, L1         | 272-103/001-000 | 1000       |
| 3  | , N, L1, L2     | 272-104/001-000 | 500        |
| 4  | , N, L1, L2, L3 | 272-105/001-000 | 500        |

Mounting holes for PE contacts  
(snap-in PE contact)

Item number examples for a 3-pole terminal strip without push-buttons:

a) Without marking:

Without PE contact 272-103

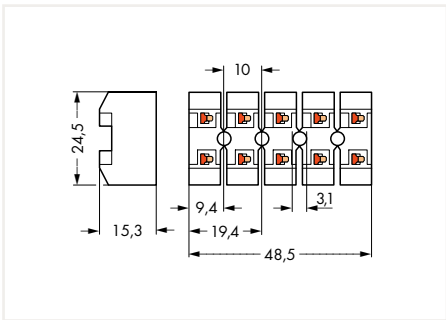
b) With printing ; N; L1:

Without PE contact 272-103/001-000

With snap-in PE contact 272-103/201-000

With screw-type PE contact 272-103/101-000

Dimensions in mm



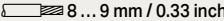
Mounting holes for pins

Screwless mounting with pins

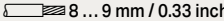
## Dividable Terminal Strip

### 272 Series

#### Technical Data

|   |   |
|---|---|
| 1 x 0.5 ... 0.75 mm <sup>2</sup> "s"  | 1 x 20 ... 18 AWG "sol.**"                                    |
| 1 x 0.5 ... 2.5 mm <sup>2</sup> "s"   | 1 x 20 ... 14 AWG "sol.**"                                    |
| 2 x 0.5 ... 2.5 mm <sup>2</sup> "s"   | 2 x 20 ... 14 AWG "sol.***"                                   |
| 380 V~, size B; I <sub>N</sub> 18 A   | 300 V $\overline{\text{VA}}$ ; 300 V $\text{\textcircled{E}}$ |
|  8 ... 9 mm / 0.33 inch |   |

#### Technical Data

|  |   |
|--|---|
| 1 x 0.5 ... 0.75 mm <sup>2</sup> "s"   | 1 x 20 ... 18 AWG "sol.**"                                    |
| 1 x 0.5 ... 2.5 mm <sup>2</sup> "s"  | 1 x 20 ... 14 AWG "sol.**"                                    |
| 2 x 0.5 ... 2.5 mm <sup>2</sup> "s"  | 2 x 20 ... 14 AWG "sol.***"                                   |
| 380 V~, size B; I <sub>N</sub> 18 A  | 300 V $\overline{\text{VA}}$ ; 300 V $\text{\textcircled{E}}$ |
|  8 ... 9 mm / 0.33 inch |   |



Dividable terminal strips; with additional push-wire connection for 0.5/0.75 mm<sup>2</sup> H07V-U (NYA) per pole; for screw or screwless mounting (WAGO pins); with snap-in mounting foot for mounting holes 3.5 mm  $\varnothing$ ; mounting plate 0.6 ... 1.2 mm thick; PE contact; for screw/rivet or snap-in contact (pluggable)

- \* Gray terminal block side
- \*\* White terminal block side
- " ❶ Item no. suffix for standard printings: 001-000
- " ❷ For tool-free mounting
- " ❸ Factory-assembled PE contacts; (please indicate position when ordering)

#### Accessories

Push-button; loose; for retrofit



271-120 1000

Assembly tool; for terminal blocks with snap-in PE contact



249-100 1

Felt-tip pen; for direct, permanent manual marking



210-110 1

4

Terminal strip; without push-buttons; white

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 1        | 272-581  | 1000       |
| 2 ❶      | 272-582  | 1000       |
| 3 ❶      | 272-583  | 500        |
| 4 ❶      | 272-584  | 500        |
| 5 ❶      | 272-585  | 500        |
| 12       | 272-592  | 40         |

With screw-type PE contact ❸

|   |                 |     |
|---|-----------------|-----|
| 3 | 272-583/1xx-000 | 500 |
| 4 | 272-584/1xx-000 | 500 |
| 5 | 272-585/1xx-000 | 500 |

With snap-in PE contact ❸

|   |                 |     |
|---|-----------------|-----|
| 3 | 272-583/2xx-000 | 500 |
| 4 | 272-584/2xx-000 | 500 |
| 5 | 272-585/2xx-000 | 500 |

Terminal strip; with snap-in mounting foot; white

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 1        | 272-681  | 500        |
| 2 ❶      | 272-682  | 500        |
| 3 ❶      | 272-683  | 500        |
| 4 ❶      | 272-684  | 500        |
| 5 ❶      | 272-685  | 500        |
| 12       | 272-692  | 40         |

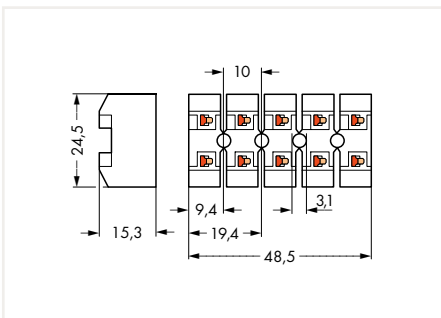
With screw-type PE contact ❸

|   |                 |     |
|---|-----------------|-----|
| 3 | 272-683/1xx-000 | 500 |
| 4 | 272-684/1xx-000 | 500 |
| 5 | 272-685/1xx-000 | 500 |

With snap-in PE contact ❸

|   |                 |     |
|---|-----------------|-----|
| 3 | 272-683/2xx-000 | 500 |
| 4 | 272-684/2xx-000 | 500 |
| 5 | 272-685/2xx-000 | 500 |


Dimensions in mm



Dimensions in mm

Accessories; item-specific

Connecting pin; for plate thickness:

|   |          |         |      |
|---|----------|---------|------|
|  | 1 mm     | 271-702 | 1000 |
|  | 1 mm ❶   | 271-711 | 1000 |
|  | 1.5 mm ❶ | 271-712 | 1000 |

# Dividable Terminal Strip; Compact Terminal Block 272 Series

| Technical Data                      |                             |
|-------------------------------------|-----------------------------|
| 2 x 0.5 ... 1.5 mm <sup>2</sup> "s" | 2 x 20 ... 16 AWG "sol."**  |
| 2 x 0.5 ... 2.5 mm <sup>2</sup> "s" | 2 x 20 ... 14 AWG "sol."*** |
| 380 V~, size B                      | 300 V, 10 A <b>N</b>        |
| I <sub>N</sub> 18 A                 | 300 V <b>⊕</b>              |
| 8 ... 9 mm / 0.33 inch              |                             |

| Technical Data                      |                            |
|-------------------------------------|----------------------------|
| 2 x 0.5 ... 1.5 mm <sup>2</sup> "s" | 2 x 20 ... 16 AWG "sol."** |
| 380 V~, size B                      | 300 V, 10 A <b>N</b>       |
| I <sub>N</sub> 26 A                 | 300 V <b>⊕</b>             |
| 8 ... 9 mm / 0.33 inch              |                            |



Mounting holes for PE contacts  
(PE contact for screw/rivet mounting)

| Terminal strip; with snap-in mounting foot; white |                 |            |
|---|-----------------|------------|
| Pole No.  | Item No.        | Pack. Unit |
| 1   | 272-131         | 500        |
| 2 <b>Ⓛ</b>  | 272-132         | 500        |
| 3 <b>Ⓛ</b>  | 272-133         | 500        |
| 4 <b>Ⓛ</b>  | 272-134         | 500        |
| 5 <b>Ⓛ</b>  | 272-135         | 500        |
| 12  | 272-142         | 40         |
| With screw-type PE contact <b>Ⓛ</b>               |                 |            |
| 3   | 272-133/1xx-000 | 500        |
| 4   | 272-134/1xx-000 | 500        |
| 5   | 272-135/1xx-000 | 500        |
| With snap-in PE contact <b>Ⓛ</b>                  |                 |            |
| 3   | 272-133/2xx-000 | 500        |
| 4   | 272-134/2xx-000 | 500        |
| 5   | 272-135/2xx-000 | 500        |

Dimensions in mm

| Compact terminal block; with snap-in mounting feet; white; for cutouts; plate thickness up to 1 mm; with additional push-wire connection for 0.5/0.75 mm <sup>2</sup> H07 V-U (NYA) per pole |                 |            |
|--|-----------------|------------|
| Pole No.   | Item No.        | Pack. Unit |
| 5  | 272-122         | 500        |
| With printing: L1; L2 (uper level); L3; N; <b>⊕</b> (lower level)  |                 |            |
| 5  | 272-122/001-000 | 500        |

Dimensions in mm

Mounting holes for PE contacts  
(snap-in PE contact)

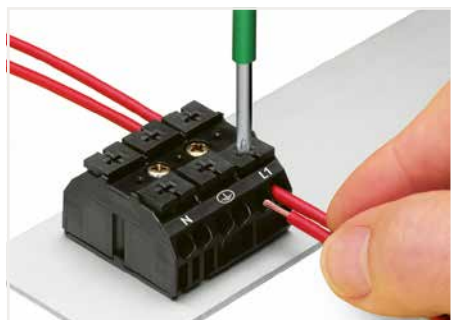
Mounting holes for pins

Screwless mounting with pins

## 4-Conductor Chassis-Mount Terminal Strips

### Description and Installation

#### 862 Series



Terminating four conductors per pole – solid and fine-stranded.



Marking by direct, one-side printing or marking strips.

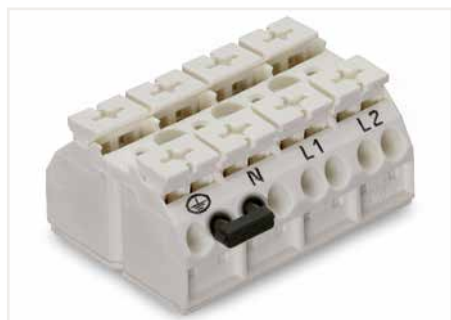


Testing with 2 mm Ø test plug.

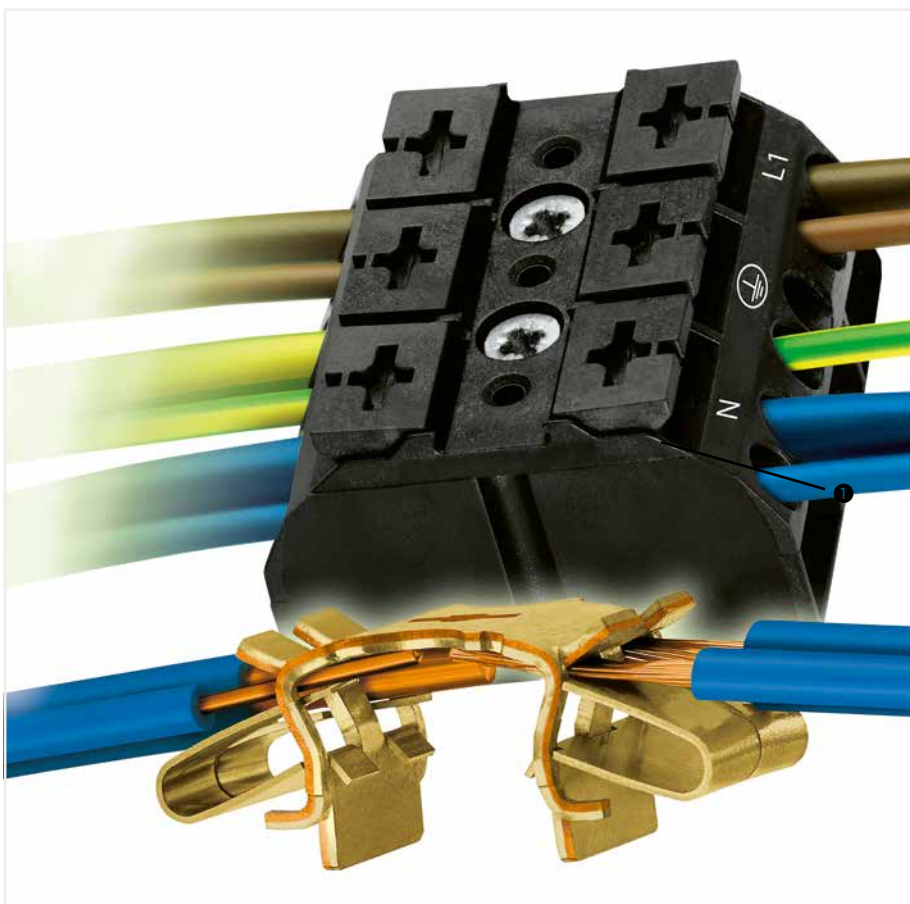
4



Makes an automatic contact to the mounting plate. The plate's varnish is instantly penetrated.



Commoning with comb-style jumper bar.



#### Cost-Effective Features:

WAGO's 862 Series Chassis-Mount Terminal Strips were developed specifically to minimize wiring costs, while accommodating requirements for flexible mounting, multiple connection points and easy handling:

- Equipped with Push-in CAGE CLAMP®, the 862 Series connects up to four conductors sized 0.5 to 4 mm<sup>2</sup> (20 ... 12 AWG). Due to multiple connection points per pole, different conductor sizes can be used within the same terminal block position.
- For factory wiring, Push-in CAGE CLAMP® Connection

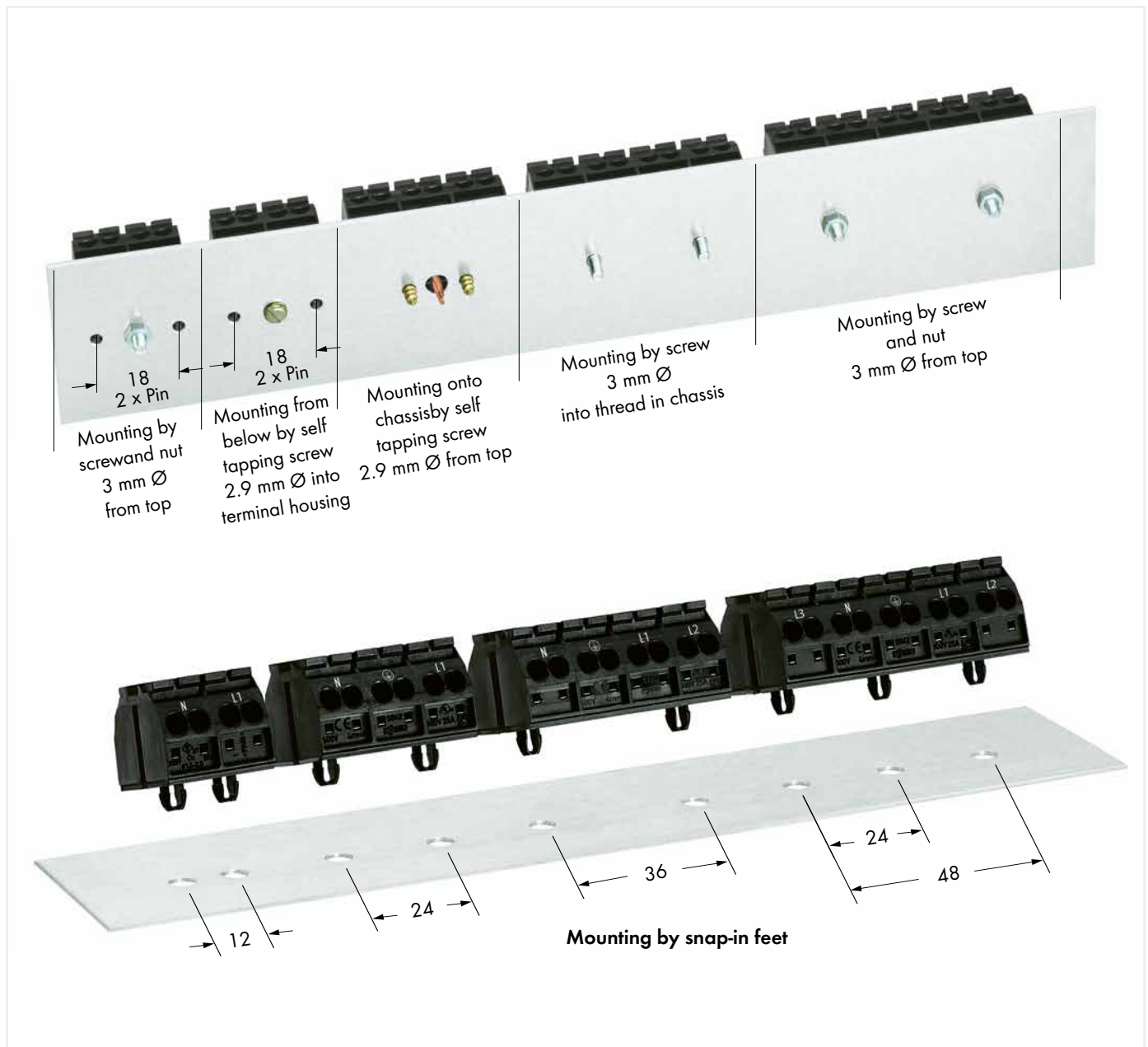
Technology allows solid conductors, fine-stranded conductors with ferrules or ultrasonically bonded conductors from 0.5 to 4 mm<sup>2</sup> (20 ... 12 AWG) to be terminated by simply pushing them into unit (length of tip-bonded conductor end: min. 10 mm).

- Convenient automatic grounding contact (optional)
- Snap-in mounting feet for fast assembly
- Push-buttons for easy installation with an operating tool or by hand
- 2 mm diameter test plug for direct testing
- Standard marking for each pole, or custom marking for large orders

# 4-Conductor Chassis-Mount Terminal Strips

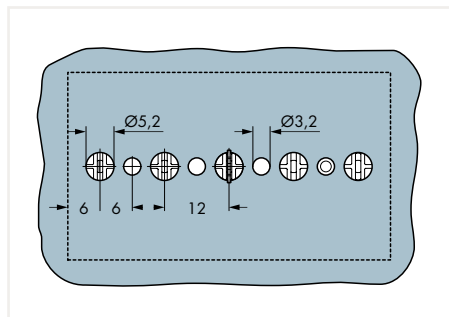
## Mounting Types

### 862 Series

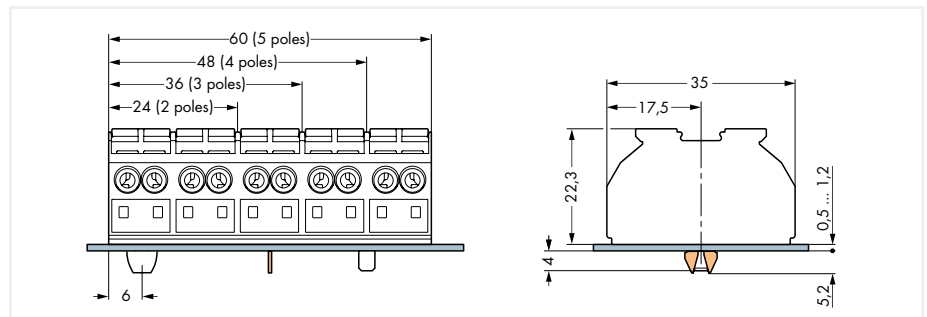


4

Dimensions in mm



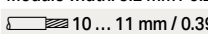
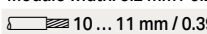
Dimensions (in mm) for PE contact and snap-in mounting foot (Ø 5.2 mm)



Dimensions (in mm) for chassis-mount terminal strips



# 4-Conductor Chassis-Mount Terminal Strip ▶ 2- and 3-pole ▶ 4 mm<sup>2</sup> 862 Series

| Technical Data  |                       | Technical Data  |                       |
|---|-----------------------|---|-----------------------|
| 0.5 ... 4 mm <sup>2</sup>   | 20 ... 12 AWG         | 0.5 ... 4 mm <sup>2</sup>   | 20 ... 12 AWG         |
| 500 V / 6 kV / 3  | 300 V, 20 A <b>VA</b> | 500 V/6 kV/3  | 300 V, 20 A <b>VA</b> |
| I <sub>N</sub> 32 A   | 300 V, 20 A <b>Ⓢ</b>  | I <sub>N</sub> 32 A   | 300 V, 20 A <b>Ⓢ</b>  |
| Module width: 5.2 mm / 0.205 inch   |                       | Module width: 5.2 mm / 0.205 inch   |                       |
|  10 ... 11 mm / 0.39 ... 0.41 inch |                       |  10 ... 11 mm / 0.39 ... 0.41 inch |                       |



4

| Without PE contact  | With PE contact | 2-pole     |            |            | 3-pole     |            |            |
|---|-----------------|------------|------------|------------|------------|------------|------------|
| For mounting via M3 screw and nut or for 2.9 mm Ø self-tapping screw from top |                 | Item No.   | Item No.   | Pack. Unit | Item No.   | Item No.   | Pack. Unit |
| plain   |                 | ● 862-552  | ○ 862-652  | 500        | ● 862-503  | ○ 862-603  | 250        |
| L1-N  |                 | ● 862-1552 | ○ 862-1652 | 500        |            |            |            |
| N-L1  |                 | ● 862-2552 | ○ 862-2652 | 500        |            |            |            |
| Ⓢ-N-L1  |                 |            |            |            | ● 862-1503 | ○ 862-1603 | 250        |
| N-Ⓢ-L1  |                 |            |            |            | ● 862-2503 | ○ 862-2603 | 250        |
|   | N-Ⓢ-L1          |            |            |            | ● 862-8503 | ○ 862-8603 | 250        |
|   | Ⓢ-N-L1          |            |            |            | ● 862-9503 | ○ 862-9603 | 250        |
| For mounting via 2.9 mm Ø self-tapping screw from bottom                      |                 |            |            |            |            |            |            |
| plain   |                 | ● 862-562  | ○ 862-662  | 500        |            |            |            |
| L1-N  |                 | ● 862-1562 | ○ 862-1662 | 500        |            |            |            |
| N-L1  |                 | ● 862-2562 | ○ 862-2662 | 500        |            |            |            |
| 1 snap-in mounting foot per pole  |                 |            |            |            |            |            |            |
| plain   |                 | ● 862-532  | ○ 862-632  | 500        | ● 862-533  | ○ 862-633  | 250        |
| L1-N  |                 | ● 862-1532 | ○ 862-1632 | 500        |            |            |            |
| N-L1  |                 | ● 862-2532 | ○ 862-2632 | 500        |            |            |            |
| Ⓢ-N-L1  |                 |            |            |            | ● 862-1533 | ○ 862-1633 | 250        |
| N-Ⓢ-L1  |                 |            |            |            | ● 862-2533 | ○ 862-2633 | 250        |
|   | N-Ⓢ-L1          |            |            |            | ● 862-8533 | ○ 862-8633 | 250        |
|   | Ⓢ-N-L1          |            |            |            | ● 862-9533 | ○ 862-9633 | 250        |
| Snap-in foot at pos. 1+3  |                 |            |            |            |            |            |            |
| plain   |                 |            |            |            | ● 862-593  | ○ 862-693  | 250        |
| Ⓢ-N-L1  |                 |            |            |            | ● 862-1593 | ○ 862-1693 | 250        |
| N-Ⓢ-L1  |                 |            |            |            | ● 862-2593 | ○ 862-2693 | 250        |
|   | N-Ⓢ-L1          |            |            |            | ● 862-8593 | ○ 862-8693 | 250        |

**862 Series Accessories**



Comb-style jumper bar; simply push into the conductor entry; I<sub>N</sub> 32 A

| Item No. | Pack. Unit |
|----------|------------|
| 862-482  | 5          |



Test plug; with 500 mm cable; 2 mm Ø

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| ● red | 210-136  | 50         |





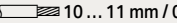
Test plug; with 500 mm cable; 2.3 mm Ø



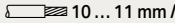
| Color    | Item No. | Pack. Unit |
|----------|----------|------------|
| ● yellow | 210-137  | 50         |



# 4-Conductor Chassis-Mount Terminal Strip ▶ 4- and 5-pole ▶ 4 mm<sup>2</sup> 862 Series

|  |
|--|
|  |
|  |
|  |
|  |
|  |

| Technical Data  |   |
|---|---|
| 0.5 ... 4 mm <sup>2</sup>   | 20 ... 12 AWG   |
| 500 V / 6 kV / 3  | 300 V, 20 A  |
| I <sub>N</sub> 32 A   | 300 V, 20 A  |
| Module width: 5.2 mm / 0.205 inch   |   |
|  10 ... 11 mm / 0.39 ... 0.41 inch |   |

| Technical Data  |   |
|---|---|
| 0.5 ... 4 mm <sup>2</sup>   | 20 ... 12 AWG   |
| 500 V / 6 kV / 3  | 300 V, 20 A  |
| I <sub>N</sub> 32 A   | 300 V, 20 A  |
| Module width: 5.2 mm / 0.205 inch   |   |
|  10 ... 11 mm / 0.39 ... 0.41 inch |   |



4

| Without PE contact  | With PE contact | 4-pole     | 5-pole     |            |            |            |            |
|---|-----------------|------------|------------|------------|------------|------------|------------|
| For mounting via M3 screw and nut or for 2.9 mm Ø self-tapping screw from top |                 | Item No.   | Item No.   | Pack. Unit | Item No.   | Item No.   | Pack. Unit |
| plain   |                 | ● 862-504  | ○ 862-604  | 200        | ● 862-505  | ○ 862-605  | 200        |
| ⊕-N-L1-L2   |                 | ● 862-1504 | ○ 862-1604 | 200        |            |            |            |
| N-⊕-L1-L2   |                 | ● 862-2504 | ○ 862-2604 | 200        |            |            |            |
|   | N-⊕-L1-L2       | ● 862-8504 | ○ 862-8604 | 200        |            |            |            |
|   | ⊕-N-L1-L2       | ● 862-9504 | ○ 862-9604 | 200        |            |            |            |
|   | ⊕-N-L1-L2-L3    |            |            |            | ● 862-1505 | ○ 862-1605 | 200        |
|   | L3-N-⊕-L1-L2    |            |            |            | ● 862-2505 | ○ 862-2605 | 200        |
|   |                 |            |            |            | ● 862-8505 | ○ 862-8605 | 200        |
|   | L3-N-⊕-L1-L2    |            |            |            | ● 862-9505 | ○ 862-9605 | 200        |
|   | ⊕-N-L1-L2-L3    |            |            |            |            |            |            |
| 1 snap-in mounting foot per pole  |                 |            |            |            | ● 862-525  | ○ 862-625  | 200        |
| plain   |                 | ● 862-534  | ○ 862-634  | 200        |            |            |            |
| ⊕-N-L1-L2   |                 | ● 862-1534 | ○ 862-1634 | 200        |            |            |            |
| N-⊕-L1-L2   |                 | ● 862-2534 | ○ 862-2634 | 200        |            |            |            |
|   | N-⊕-L1-L2       | ● 862-8534 | ○ 862-8634 | 200        |            |            |            |
|   | ⊕-N-L1-L2       | ● 862-9534 | ○ 862-9634 | 200        |            |            |            |
|   | ⊕-N-L1-L2-L3    |            |            |            | ● 862-1525 | ○ 862-1625 | 200        |
|   | L3-N-⊕-L1-L2    |            |            |            | ● 862-2525 | ○ 862-2625 | 200        |
|   |                 |            |            |            | ● 862-8525 | ○ 862-8625 | 200        |
|   | L3-N-⊕-L1-L2    |            |            |            | ● 862-9525 | ○ 862-9625 | 200        |
|   | ⊕-N-L1-L2-L3    |            |            |            |            |            |            |
| Snap-in foot at pos. 1+4  |                 |            |            |            |            |            |            |
| plain   |                 | ● 862-594  | ○ 862-694  | 200        |            |            |            |
| ⊕-N-L1-L2   |                 | ● 862-1594 | ○ 862-1694 | 200        |            |            |            |
| N-⊕-L1-L2   |                 | ● 862-2594 | ○ 862-2694 | 200        |            |            |            |
|   | N-⊕-L1-L2       | ● 862-8594 | ○ 862-8694 | 200        |            |            |            |
|   | ⊕-N-L1-L2       | ● 862-9594 | ○ 862-9694 | 200        |            |            |            |
| Snap-in mounting foot at pos. 1+3+5   |                 |            |            |            | ● 862-515  | ○ 862-615  | 200        |
| plain   |                 |            |            |            | ● 862-1515 | ○ 862-1615 | 200        |
| ⊕-N-L1-L2-L3  |                 |            |            |            | ● 862-2515 | ○ 862-2615 | 200        |
| L3-N-⊕-L1-L2  |                 |            |            |            | ● 862-8515 | ○ 862-8615 | 200        |
|   | L3-N-⊕-L1-L2    |            |            |            | ● 862-9515 | ○ 862-9615 | 200        |
|   | ⊕-N-L1-L2-L3    |            |            |            |            |            |            |

**862 Series Accessories**



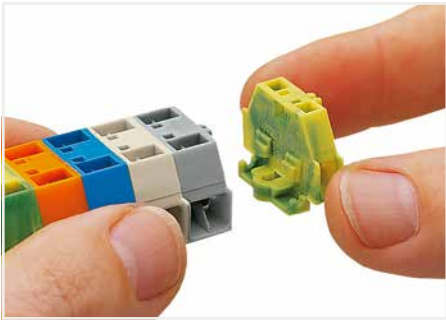
| Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade |            |
|---|------------|
| Item No.  | Pack. Unit |
| 210-720   | 1          |

| Marking strip; plain; 7.5 mm wide; 50 m reel |          |            |
|--|----------|------------|
| Color  | Item No. | Pack. Unit |
| ○ white                                      | 709-178  | 1          |

# Modular Terminal Blocks and Terminal Strips

## 260 to 262 Series

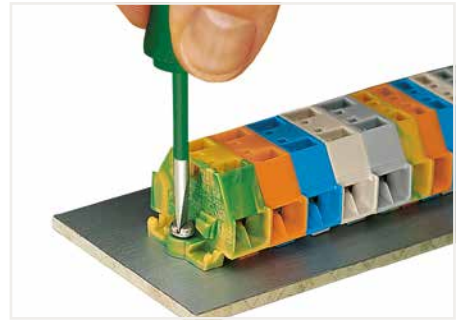
### Description and Installation



Assembling modular terminal blocks into terminal strips.



Mounting an end plate.

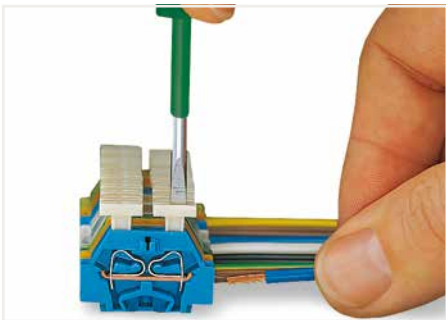


Terminal strip; with mounting flanges; screw mounting

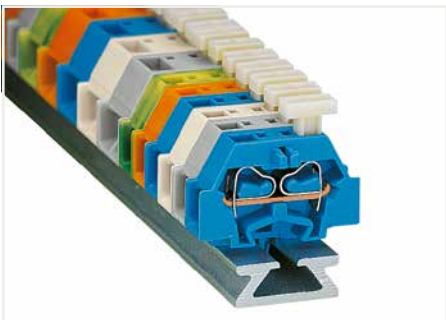
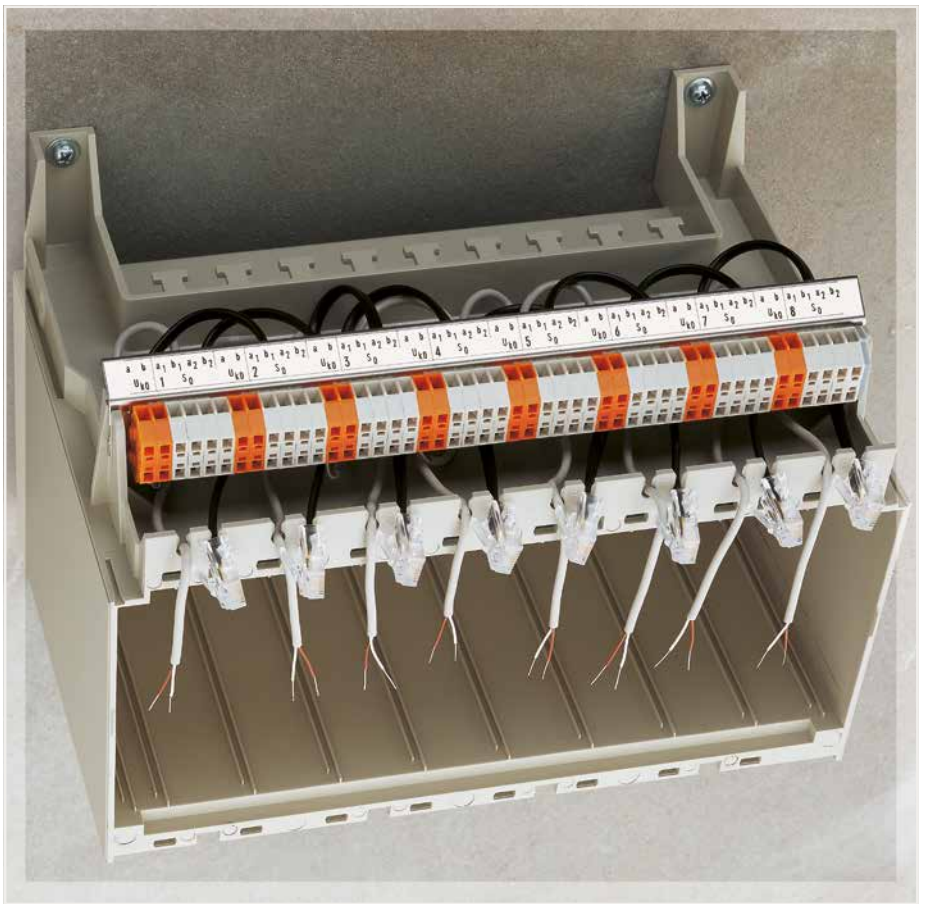
4



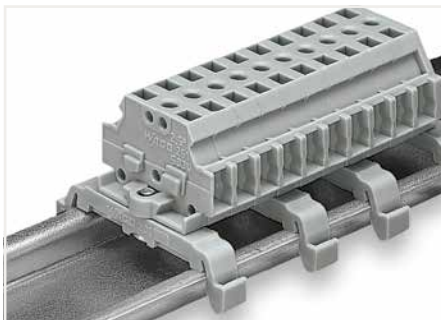
**CAGE CLAMP® connection**  
Inserting a conductor.  
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross-section.



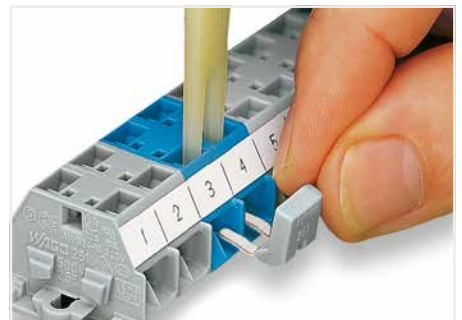
**CAGE CLAMP® connection**  
Inserting a conductor via push-button.



Terminal strip; with push-buttons on one side



Terminal strip; with marker slot for Mini-WSB Quick Marking System



Commoning with comb-style jumper bar.



**CAGE CLAMP®** terminates the following copper conductors: solid



stranded

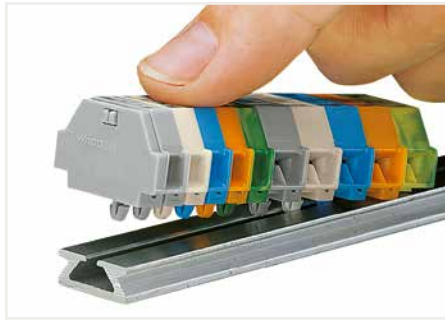


fine-stranded, also with tinned single strands

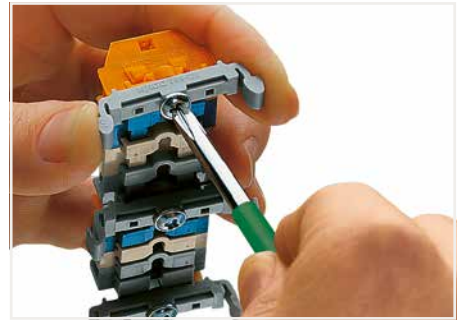




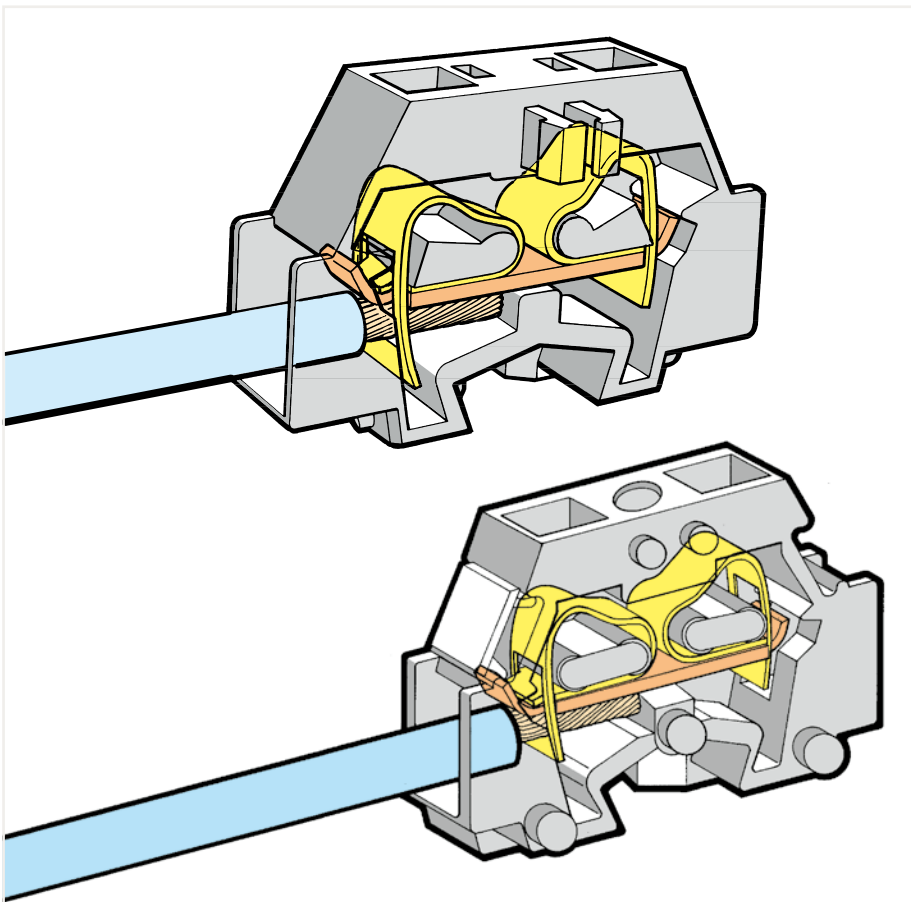
Mounting a terminal strip with snap-in feet into holes.



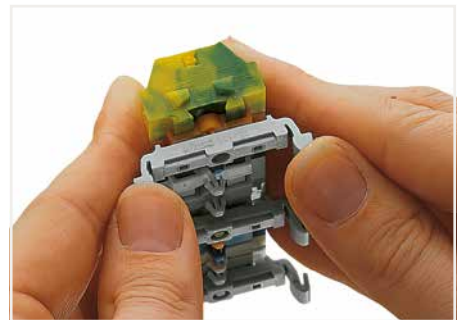
Mounting a terminal strip with snap-in feet onto aluminum rail.



Terminal strip with mounting flanges  
Screwing a mounting foot (209-123).  
(Distance between mounting feet: approx. 20 ... 25 mm)



Terminal strip; with mounting flanges; for DIN-35 rail



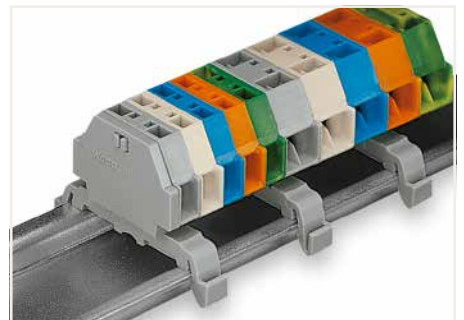
Terminal strip; with snap-in mounting feet  
Snapping a mounting foot (209-120).  
(Distance between mounting feet: approx. 20 ... 25 mm)



Marking with self-adhesive marking strips.



Marking by direct printing (upon request).



Terminal strip; with snap-in mounting feet; for DIN-35 rail



fine-stranded,  
tip-bonded



fine-stranded,  
with ferrule  
(gastight crimped)



fine-stranded,  
with pin terminal  
(gastight crimped)

# Modular Terminal Block ▶ with mounting flange or snap-in mounting foot 1.5 mm<sup>2</sup> ▶ 260 Series

| Technical Data                          |               |
|---|---------------|
| 0.08 ... 1.5 mm <sup>2</sup>            | 28 ... 16 AWG |
| 400 V / 6 kV / 3 ①                      | 300 V, 10 A ② |
| I <sub>N</sub> 18 A                     | 300 V, 15 A ③ |
| Terminal block width: 5 mm / 0.197 inch |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch         |               |



2-conductor terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail

| Color          | Item No. | Pack. Unit |
|----------------|----------|------------|
| ○ gray         | 260-301  | 300 (50)   |
| ○ light gray   | 260-303  | 300 (50)   |
| ● blue         | 260-304  | 300 (50)   |
| ● orange       | 260-306  | 300 (50)   |
| ● green-yellow | 260-307  | 300 (50)   |

2-conductor terminal block; with snap-in mounting foot; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail

|                |         |          |
|----------------|---------|----------|
| ○ gray         | 260-311 | 300 (50) |
| ○ light gray   | 260-313 | 300 (50) |
| ● blue         | 260-314 | 300 (50) |
| ● orange       | 260-316 | 300 (50) |
| ● green-yellow | 260-317 | 300 (50) |

Space-saving 2-conductor end terminal block; without protruding snap-in mounting foot; for terminal strips with snap-in mounting feet

|                |         |          |
|----------------|---------|----------|
| ○ gray         | 260-321 | 300 (50) |
| ○ light gray   | 260-323 | 300 (50) |
| ● blue         | 260-324 | 300 (50) |
| ● orange       | 260-326 | 300 (50) |
| ● green-yellow | 260-327 | 300 (50) |

Accessories; item-specific  
Test plug module; snaps together; 5 mm wide

|      |         |          |
|------|---------|----------|
| gray | 249-135 | 100 (25) |
|------|---------|----------|

Test plug module; with locking latches; snaps together; 5 mm wide

|      |         |          |
|------|---------|----------|
| gray | 260-404 | 100 (25) |
|------|---------|----------|

End plate; with mounting flange  
260 Series 260-361 300 (50)

|      |         |          |
|------|---------|----------|
| gray | 260-361 | 300 (50) |
|------|---------|----------|

End plate; with snap-in mounting foot  
gray 260-371 300 (50)

|      |         |          |
|------|---------|----------|
| gray | 260-371 | 300 (50) |
|------|---------|----------|

| Technical Data                          |               |
|---|---------------|
| 0.08 ... 1.5 mm <sup>2</sup>            | 28 ... 16 AWG |
| 400 V / 6 kV / 3 ①                      | 300 V, 10 A ② |
| I <sub>N</sub> 18 A                     | 300 V, 15 A ③ |
| Terminal block width: 8 mm / 0.315 inch |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch         |               |



4-conductor terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail

| Color          | Item No. | Pack. Unit |
|----------------|----------|------------|
| ○ gray         | 260-331  | 300 (50)   |
| ○ light gray   | 260-333  | 300 (50)   |
| ● blue         | 260-334  | 300 (50)   |
| ● orange       | 260-336  | 300 (50)   |
| ● green-yellow | 260-337  | 300 (50)   |

4-conductor terminal block; with snap-in mounting foot; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail

|                |         |          |
|----------------|---------|----------|
| ○ gray         | 260-341 | 300 (50) |
| ○ light gray   | 260-343 | 300 (50) |
| ● blue         | 260-344 | 300 (50) |
| ● orange       | 260-346 | 300 (50) |
| ● green-yellow | 260-347 | 300 (50) |

Space-saving 4-conductor end terminal block; without protruding snap-in mounting foot; for terminal strips with snap-in mounting feet

|                |         |          |
|----------------|---------|----------|
| ○ gray         | 260-351 | 300 (50) |
| ○ light gray   | 260-353 | 300 (50) |
| ● blue         | 260-354 | 300 (50) |
| ● orange       | 260-356 | 300 (50) |
| ● green-yellow | 260-357 | 300 (50) |

Accessories; item-specific  
Test plug module; snaps together; 8 mm wide

|      |         |          |
|------|---------|----------|
| gray | 249-138 | 100 (25) |
|------|---------|----------|

Test plug module; with locking latches; snaps together; 8 mm wide

|      |         |          |
|------|---------|----------|
| gray | 260-405 | 100 (25) |
|------|---------|----------|

Comb-style jumper bar; insulated; reduces maximum conductor size to 1 mm<sup>2</sup>; I<sub>N</sub> 10 A; gray

|       |         |    |
|-------|---------|----|
| 2-way | 260-402 | 25 |
|-------|---------|----|

Operating tool; insulated; for comb-style jumper bar

|       |         |   |
|-------|---------|---|
| 2-way | 209-132 | 1 |
|-------|---------|---|

① 400 V = rated voltage  
6 kV = rated impulse voltage  
3 = pollution degree  
Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)

Accessories; 260 Series  
Marking media, see Section 13

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

|     |         |    |
|-----|---------|----|
| red | 210-136 | 50 |
|-----|---------|----|

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

|        |         |    |
|--------|---------|----|
| yellow | 210-137 | 50 |
|--------|---------|----|

Aluminum DIN-rail; 1000 mm long; 18 mm wide; 7 mm high

|  |         |   |
|--|---------|---|
|  | 210-154 | 1 |
|--|---------|---|

Plastic end stop; with WSB marker slot; for aluminum DIN-rail (210-154); 6 mm wide

|  |         |    |
|--|---------|----|
|  | 209-122 | 25 |
|--|---------|----|

Mounting foot; for DIN-35 rail; snaps onto terminal blocks with snap-in mounting foot; 6.4 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-120 | 25 |
|------|---------|----|

Mounting screw; for mounting foot (209-120)

|  |         |          |
|--|---------|----------|
|  | 209-119 | 500 (50) |
|--|---------|----------|

Mounting foot with screw; for DIN-35 rail; can be screwed on terminal blocks with mounting flange; 6.4 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-123 | 25 |
|------|---------|----|

Mounting adapter; for DIN-35 rail; can be used as an end stop; 6.5 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-137 | 25 |
|------|---------|----|

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

|  |         |   |
|--|---------|---|
|  | 210-720 | 1 |
|--|---------|---|

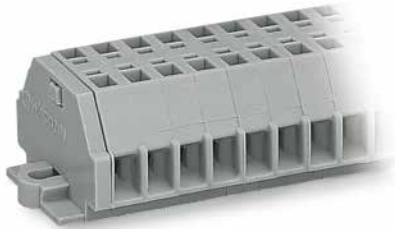
4

# Terminal Strip ▶ with mounting flanges or snap-in mounting feet 1.5 mm<sup>2</sup> ▶ 260 Series

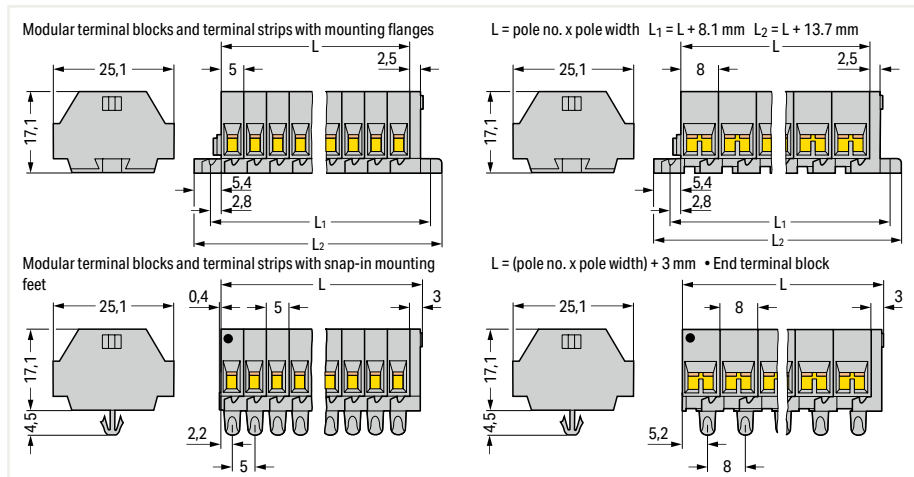
| Technical Data                  |               |
|---------------------------------|---------------|
| 0.08 ... 1.5 mm <sup>2</sup>    | 28 ... 16 AWG |
| 400 V / 6 kV / 3 ❶              | 300 V, 10 A ❷ |
| I <sub>N</sub> 18 A             | 300 V, 15 A ❸ |
| Pole width: 5 mm / 0.197 inch   |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch |               |

| Technical Data                  |               |
|---------------------------------|---------------|
| 0.08 ... 1.5 mm <sup>2</sup>    | 28 ... 16 AWG |
| 400 V / 6 kV / 3 ❶              | 300 V, 10 A ❷ |
| I <sub>N</sub> 18 A             | 300 V, 15 A ❸ |
| Pole width: 8 mm / 0.315 inch   |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch |               |

- ❶ 400 V = rated voltage  
6 kV = rated impulse voltage  
3 = pollution degree
  - ❷ Longer strips and/or mixed-color assemblies are available upon request.
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



Dimensions in mm



Terminal strip; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN35 rail)



Terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter (also for aluminum DIN-rail (Item No. 210-154) or with mounting foot (209-120) for DIN-35 rail)

2-conductor terminal strip; with mounting flanges; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray

4-conductor terminal strip; with mounting flanges; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 260-102  | 100        |
| ○ 3      | 260-103  | 100        |
| ○ 4      | 260-104  | 100        |
| ○ 5      | 260-105  | 100        |
| ○ 6      | 260-106  | 100        |
| ○ 7      | 260-107  | 100        |
| ○ 8      | 260-108  | 100        |
| ○ 9      | 260-109  | 50         |
| ○ 10     | 260-110  | 50         |
| ○ 11     | 260-111  | 50         |
| ○ 12 ❷   | 260-112  | 25         |

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 260-202  | 100        |
| ○ 3      | 260-203  | 100        |
| ○ 4      | 260-204  | 100        |
| ○ 5      | 260-205  | 100        |
| ○ 6      | 260-206  | 100        |
| ○ 7      | 260-207  | 100        |
| ○ 8      | 260-208  | 100        |
| ○ 9      | 260-209  | 50         |
| ○ 10     | 260-210  | 50         |
| ○ 11     | 260-211  | 25         |
| ○ 12 ❷   | 260-212  | 25         |

2-conductor terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail; gray

4-conductor terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 260-152  | 100        |
| ○ 3      | 260-153  | 100        |
| ○ 4      | 260-154  | 100        |
| ○ 5      | 260-155  | 100        |
| ○ 6      | 260-156  | 50         |
| ○ 7      | 260-157  | 50         |
| ○ 8      | 260-158  | 50         |
| ○ 9      | 260-159  | 50         |
| ○ 10     | 260-160  | 25         |
| ○ 11     | 260-161  | 25         |
| ○ 12 ❷   | 260-162  | 25         |

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 260-252  | 100        |
| ○ 3      | 260-253  | 100        |
| ○ 4      | 260-254  | 100        |
| ○ 5      | 260-255  | 100        |
| ○ 6      | 260-256  | 50         |
| ○ 7      | 260-257  | 50         |
| ○ 8      | 260-258  | 50         |
| ○ 9      | 260-259  | 50         |
| ○ 10     | 260-260  | 25         |
| ○ 11     | 260-261  | 25         |
| ○ 12 ❷   | 260-262  | 25         |

# Modular Terminal Block ▶ with mounting flange or snap-in mounting foot 2.5 mm<sup>2</sup> ▶ 261 Series

| Technical Data                          |               |
|---|---------------|
| 0.08 ... 2.5 mm <sup>2</sup>            | 28 ... 14 AWG |
| 500 V / 6 kV / 3 ①                      | 300 V, 15 A ② |
| I <sub>N</sub> 24 A                     | 300 V, 20 A ③ |
| Terminal block width: 6 mm / 0.236 inch |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch         |               |

| Technical Data                           |               |
|--|---------------|
| 0.08 ... 2.5 mm <sup>2</sup>             | 28 ... 14 AWG |
| 500 V / 6 kV / 3 ①                       | 300 V, 15 A ② |
| I <sub>N</sub> 24 A                      | 300 V, 20 A ③ |
| Terminal block width: 10 mm / 0.394 inch |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch          |               |

- ① 500 V = rated voltage  
6 kV = rated impulse voltage  
3 = pollution degree
  - ② Terminal blocks with a blue insulated housing are suitable for Ex i applications.
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



2-conductor terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail

| Color          | Item No.  | Pack. Unit |
|----------------|-----------|------------|
| ○ gray         | 261-301   | 200 (50)   |
| ○ light gray   | 261-303   | 200 (50)   |
| ● blue         | 261-304 ② | 200 (50)   |
| ● orange       | 261-306   | 200 (50)   |
| ● green-yellow | 261-307   | 200 (50)   |

4-conductor terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail

| Color          | Item No.  | Pack. Unit |
|----------------|-----------|------------|
| ○ gray         | 261-331   | 200 (50)   |
| ○ light gray   | 261-333   | 200 (50)   |
| ● blue         | 261-334 ② | 200 (50)   |
| ● orange       | 261-336   | 200 (50)   |
| ● green-yellow | 261-337   | 200 (50)   |

### Accessories; 261 Series

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

|   |     |         |    |
|---|-----|---------|----|
|  | red | 210-136 | 50 |
|---|-----|---------|----|

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

|   |        |         |    |
|---|--------|---------|----|
|  | yellow | 210-137 | 50 |
|---|--------|---------|----|

Aluminum DIN-rail; 1000 mm long; 18 mm wide; 7 mm high

|   |  |         |   |
|---|--|---------|---|
|  |  | 210-154 | 1 |
|---|--|---------|---|

Plastic end stop; with WSB marker slot; for aluminum DIN-rail (210-154); 6 mm wide

|   |  |         |    |
|---|--|---------|----|
|  |  | 209-122 | 25 |
|---|--|---------|----|

Mounting foot; for DIN-35 rail; snaps onto terminal blocks with snap-in mounting foot; 6.4 mm wide

|   |      |         |    |
|---|------|---------|----|
|  | gray | 209-120 | 25 |
|---|------|---------|----|

Mounting screw; for mounting foot (209-120)

|  |  |         |          |
|--|--|---------|----------|
|  |  | 209-119 | 500 (50) |
|--|--|---------|----------|

Mounting foot with screw; for DIN-35 rail; can be screwed on terminal blocks with mounting flange; 6.4 mm wide

|   |      |         |    |
|---|------|---------|----|
|  | gray | 209-123 | 25 |
|---|------|---------|----|

Mounting adapter; for DIN-35 rail; can be used as an end stop; 6.5 mm wide

|   |      |         |    |
|---|------|---------|----|
|  | gray | 209-137 | 25 |
|---|------|---------|----|

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

|   |  |         |   |
|---|--|---------|---|
|  |  | 210-720 | 1 |
|---|--|---------|---|

2-conductor terminal block; with snap-in mounting foot; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail

|                |           |          |
|----------------|-----------|----------|
| ○ gray         | 261-311   | 200 (50) |
| ○ light gray   | 261-313   | 200 (50) |
| ● blue         | 261-314 ② | 200 (50) |
| ● orange       | 261-316   | 200 (50) |
| ● green-yellow | 261-317   | 200 (50) |

4-conductor terminal block; with snap-in mounting foot; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail

|                |           |          |
|----------------|-----------|----------|
| ○ gray         | 261-341   | 200 (50) |
| ○ light gray   | 261-343   | 200 (50) |
| ● blue         | 261-344 ② | 200 (50) |
| ● orange       | 261-346   | 200 (50) |
| ● green-yellow | 261-347   | 200 (50) |

Space-saving 2-conductor end terminal block; without protruding snap-in mounting foot; for terminal strips with snap-in mounting feet

|                |           |          |
|----------------|-----------|----------|
| ○ gray         | 261-321   | 200 (50) |
| ○ light gray   | 261-323   | 200 (50) |
| ● blue         | 261-324 ② | 200 (50) |
| ● orange       | 261-326   | 200 (50) |
| ● green-yellow | 261-327   | 200 (50) |

Space-saving 4-conductor end terminal block; without protruding snap-in mounting foot; for terminal strips with snap-in mounting feet

|                |           |          |
|----------------|-----------|----------|
| ○ gray         | 261-351   | 200 (50) |
| ○ light gray   | 261-353   | 200 (50) |
| ● blue         | 261-354 ② | 200 (50) |
| ● orange       | 261-356   | 200 (50) |
| ● green-yellow | 261-357   | 200 (50) |

### Accessories; item-specific


Test plug module; snaps together; 6 mm wide

|   |      |         |          |
|---|------|---------|----------|
|  | gray | 249-136 | 100 (25) |
|---|------|---------|----------|

Test plug module; with locking latches; snaps together; 6 mm wide

|   |      |         |          |
|---|------|---------|----------|
|  | gray | 261-404 | 100 (25) |
|---|------|---------|----------|

End plate; with mounting flange

|   |      |         |          |
|---|------|---------|----------|
|  | gray | 261-361 | 300 (50) |
|---|------|---------|----------|

End plate; with snap-in mounting foot

|   |      |         |          |
|---|------|---------|----------|
|  | gray | 261-371 | 300 (50) |
|---|------|---------|----------|

### Accessories; item-specific

Test plug module; snaps together; 10 mm wide

|   |      |         |          |
|---|------|---------|----------|
|  | gray | 249-139 | 100 (25) |
|---|------|---------|----------|


Test plug module; with locking latches; snaps together; 10 mm wide

|   |      |         |          |
|---|------|---------|----------|
|  | gray | 261-405 | 100 (25) |
|---|------|---------|----------|

Comb-style jumper bar; insulated; reduces maximum conductor size to 1.5 mm<sup>2</sup>; I<sub>N</sub> 16 A; gray

|   |       |         |    |
|---|-------|---------|----|
|  | 2-way | 261-402 | 25 |
|---|-------|---------|----|

Operating tool; insulated; for comb-style jumper bar

|   |       |         |   |
|---|-------|---------|---|
|  | 2-way | 209-132 | 1 |
|---|-------|---------|---|

4

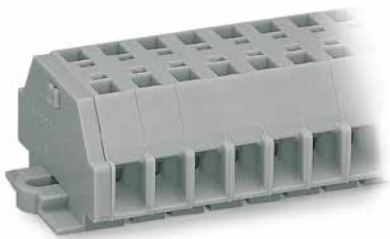


# Terminal Strip ▶ with mounting flanges or snap-in mounting feet 2.5 mm<sup>2</sup> ▶ 261 Series

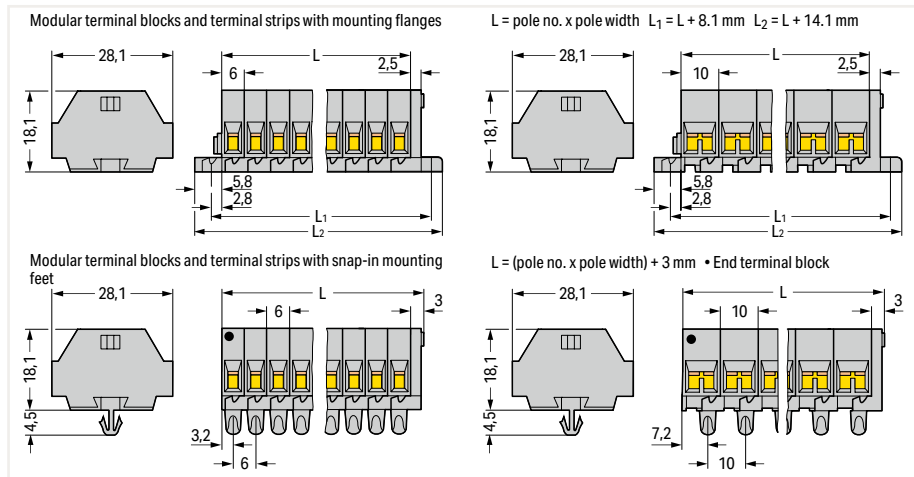
| Technical Data                  |               |
|---------------------------------|---------------|
| 0.08 ... 2.5 mm <sup>2</sup>    | 28 ... 14 AWG |
| 500 V / 6 kV / 3 ❶              | 300 V, 15 A ❷ |
| I <sub>N</sub> 24 A             | 300 V, 20 A ❸ |
| Pole width: 6 mm / 0.236 inch   |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch |               |

| Technical Data                  |               |
|---------------------------------|---------------|
| 0.08 ... 2.5 mm <sup>2</sup>    | 28 ... 14 AWG |
| 500 V / 6 kV / 3 ❶              | 300 V, 15 A ❷ |
| I <sub>N</sub> 24 A             | 300 V, 20 A ❸ |
| Pole width: 10 mm / 0.394 inch  |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch |               |

- ❶ 500 V = rated voltage  
6 kV = rated impulse voltage  
3 = pollution degree
  - ❷ Terminal strips with a blue housing are suitable for Ex i applications.  
Item no. suffixes .../000-006 (upon request)
  - ❸ Longer strips and/or mixed-color assemblies are available upon request.
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



Dimensions in mm



Terminal strip; with mounting flanges; for screw similar similar mounting types; 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN35 rail)



Terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter (also for 210-154 Aluminum DIN-Rail or with 209-120 Mounting Foot for DIN-35 rail)

2-conductor terminal strip; with mounting flanges; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray ❷

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 261-102  | 100        |
| ○ 3      | 261-103  | 100        |
| ○ 4      | 261-104  | 100        |
| ○ 5      | 261-105  | 200        |
| ○ 6      | 261-106  | 50         |
| ○ 7      | 261-107  | 50         |
| ○ 8      | 261-108  | 50         |
| ○ 9      | 261-109  | 50         |
| ○ 10     | 261-110  | 25         |
| ○ 11     | 261-111  | 25         |
| ○ 12 ❸   | 261-112  | 25         |

4-conductor terminal strip; with mounting flanges; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray ❷

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 261-202  | 100        |
| ○ 3      | 261-203  | 100        |
| ○ 4      | 261-204  | 100        |
| ○ 5      | 261-205  | 100        |
| ○ 6      | 261-206  | 50         |
| ○ 7      | 261-207  | 50         |
| ○ 8      | 261-208  | 50         |
| ○ 9      | 261-209  | 50         |
| ○ 10     | 261-210  | 25         |
| ○ 11     | 261-211  | 25         |
| ○ 12 ❸   | 261-212  | 25         |

2-conductor terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail; gray ❷

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 261-152  | 100        |
| ○ 3      | 261-153  | 100        |
| ○ 4      | 261-154  | 100        |
| ○ 5      | 261-155  | 100        |
| ○ 6      | 261-156  | 50         |
| ○ 7      | 261-157  | 50         |
| ○ 8      | 261-158  | 50         |
| ○ 9      | 261-159  | 50         |
| ○ 10     | 261-160  | 25         |
| ○ 11     | 261-161  | 25         |
| ○ 12 ❸   | 261-162  | 25         |

4-conductor terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail; gray ❷

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 261-252  | 100        |
| ○ 3      | 261-253  | 100        |
| ○ 4      | 261-254  | 100        |
| ○ 5      | 261-255  | 100        |
| ○ 6      | 261-256  | 50         |
| ○ 7      | 261-257  | 50         |
| ○ 8      | 261-258  | 50         |
| ○ 9      | 261-259  | 50         |
| ○ 10     | 261-260  | 25         |
| ○ 11     | 261-261  | 25         |
| ○ 12 ❸   | 261-262  | 25         |



# Terminal Strip ▶ with mounting flanges ▶ with marker slot for Mini-WSB Quick Marking System 2.5 mm<sup>2</sup> ▶ 261 Series

### Technical Data

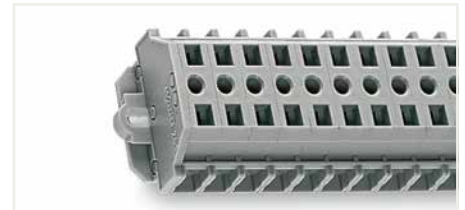
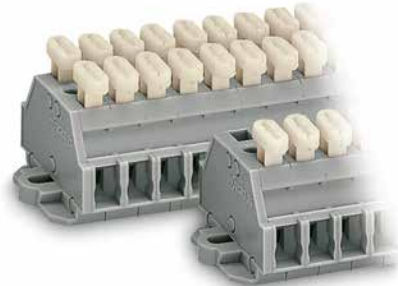
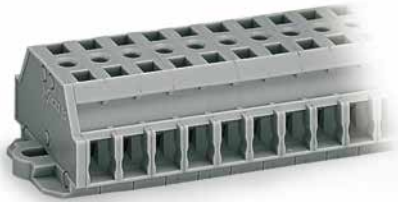
|                                 |               |
|---------------------------------|---------------|
| 0.08 ... 2.5 mm <sup>2</sup>    | 28 ... 14 AWG |
| 500 V / 6 kV / 3 ❶              | 300 V, 15 A ❷ |
| I <sub>N</sub> 24 A             | 300 V, 20 A ❸ |
| Pole width: 6 mm / 0.236 inch   |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch |               |

### Technical Data

|                                 |               |
|---------------------------------|---------------|
| 0.08 ... 2.5 mm <sup>2</sup>    | 28 ... 14 AWG |
| 500 V / 6 kV / 3 ❶              | 300 V, 15 A ❷ |
| I <sub>N</sub> 24 A             | 300 V, 20 A ❸ |
| Pole width: 6 mm / 0.236 inch   |               |
| 8 ... 9 mm / 0.31 ... 0.35 inch |               |

- ❶ 500 V = rated voltage  
6 kV = rated impulse voltage  
3 = pollution degree
- ❷ Longer strips are available upon request.

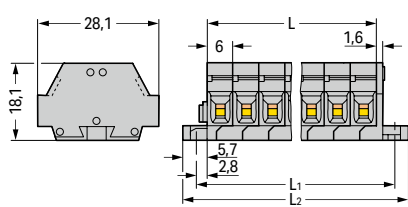
Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



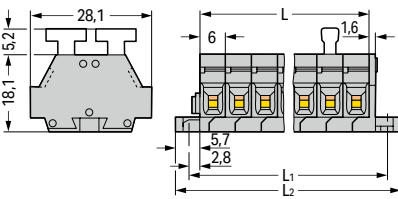
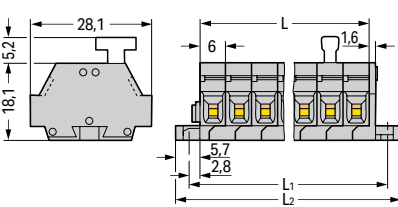
4

Dimensions in mm

Modular terminal blocks and terminal strips with mounting flanges



L = pole no. x pole width L<sub>1</sub> = L + 7.2 mm L<sub>2</sub> = L + 13 mm



2-conductor terminal strip; with mounting flanges; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 261-422  | 100        |
| ○ 3      | 261-423  | 100        |
| ○ 4      | 261-424  | 100        |
| ○ 5      | 261-425  | 200        |
| ○ 6      | 261-426  | 50         |
| ○ 7      | 261-427  | 50         |
| ○ 8      | 261-428  | 50         |
| ○ 9      | 261-429  | 50         |
| ○ 10     | 261-430  | 25         |
| ○ 11     | 261-431  | 25         |
| ○ 12 ❷   | 261-432  | 25         |

2-conductor terminal strip; with push-buttons on one side; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray

| Pole No. | Item No.        | Pack. Unit |
|----------|-----------------|------------|
| ○ 2      | 261-422/331-000 | 100        |
| ○ 3      | 261-423/331-000 | 100        |
| ○ 4      | 261-424/331-000 | 100        |
| ○ 5      | 261-425/331-000 | 100        |
| ○ 6      | 261-426/331-000 | 50         |
| ○ 7      | 261-427/331-000 | 50         |
| ○ 8      | 261-428/331-000 | 50         |
| ○ 9      | 261-429/331-000 | 50         |
| ○ 10     | 261-430/331-000 | 25         |
| ○ 11     | 261-431/331-000 | 25         |
| ○ 12 ❸   | 261-432/331-000 | 25         |

Terminal strip; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN35 rail)



Terminal strip; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN35 rail)

2-conductor terminal strip; with push-buttons on both sides; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray

| Pole No. | Item No.        | Pack. Unit |
|----------|-----------------|------------|
| ○ 2      | 261-422/341-000 | 100        |
| ○ 3      | 261-423/341-000 | 100        |
| ○ 4      | 261-424/341-000 | 100        |
| ○ 5      | 261-425/341-000 | 100        |
| ○ 6      | 261-426/341-000 | 50         |
| ○ 7      | 261-427/341-000 | 50         |
| ○ 8      | 261-428/341-000 | 50         |
| ○ 9      | 261-429/341-000 | 50         |
| ○ 10     | 261-430/341-000 | 25         |
| ○ 11     | 261-431/341-000 | 25         |
| ○ 12 ❹   | 261-432/341-000 | 25         |

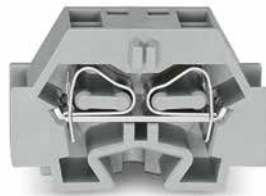
4

# Modular Terminal Block ▶ with mounting flange or snap-in mounting foot 4 mm<sup>2</sup> ▶ 262 Series

| Technical Data                          |               |
|---|---------------|
| 0.08 ... 4 mm <sup>2</sup>              | 28 ... 12 AWG |
| 630 V / 8 kV / 3 ①                      | 300 V, 20 A ② |
| I <sub>N</sub> 24 A                     | 300 V, 20 A ③ |
| Terminal block width: 7 mm / 0.276 inch |               |
| 9 ... 10 mm / 0.35 ... 0.39 inch        |               |

| Technical Data                           |               |
|--|---------------|
| 0.08 ... 4 mm <sup>2</sup>               | 28 ... 12 AWG |
| 630 V / 8 kV / 3 ①                       | 300 V, 20 A ② |
| I <sub>N</sub> 32 A                      | 300 V, 20 A ③ |
| Terminal block width: 12 mm / 0.472 inch |               |
| 9 ... 10 mm / 0.35 ... 0.39 inch         |               |

- ① 630 V = rated voltage  
8 kV = rated impulse voltage  
3 = pollution degree
  - ② Terminal blocks with a blue insulated housing are suitable for Ex i applications.
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



**Accessories; 262 Series**  
Mounting foot; for DIN-35 rail; snaps onto terminal blocks with snap-in mounting foot; 6.4 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-120 | 25 |
|------|---------|----|

Mounting screw; for mounting foot (209-120)

|         |          |
|---------|----------|
| 209-119 | 500 (50) |
|---------|----------|

2-conductor terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail

| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 262-301   | 100 (50)   |
| blue         | 262-304 ② | 100 (50)   |
| orange       | 262-306   | 100 (50)   |
| green-yellow | 262-307   | 100 (50)   |

4-conductor terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail

| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 262-331   | 100 (50)   |
| blue         | 262-334 ② | 100 (50)   |
| orange       | 262-336   | 100 (50)   |
| green-yellow | 262-337   | 100 (50)   |

Mounting foot with screw; for DIN-35 rail; can be screwed on terminal blocks with mounting flange; 6.4 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-123 | 25 |
|------|---------|----|



Mounting adapter; for DIN-35 rail; can be used as an end stop; 6.5 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-137 | 25 |
|------|---------|----|



2-conductor terminal block; with snap-in mounting foot; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail

|              |           |          |
|--------------|-----------|----------|
| gray         | 262-311   | 100 (50) |
| blue         | 262-314 ② | 100 (50) |
| orange       | 262-316   | 100 (50) |
| green-yellow | 262-317   | 100 (50) |

4-conductor terminal block; with snap-in mounting foot; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail

|              |           |          |
|--------------|-----------|----------|
| gray         | 262-341   | 100 (50) |
| blue         | 262-344 ② | 100 (50) |
| orange       | 262-346   | 100 (50) |
| green-yellow | 262-347   | 100 (50) |

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

|         |   |
|---------|---|
| 210-720 | 1 |
|---------|---|



Space-saving 2-conductor end terminal block; without protruding snap-in mounting foot; for terminal strips with snap-in mounting feet

|              |           |          |
|--------------|-----------|----------|
| gray         | 262-321   | 100 (50) |
| blue         | 262-324 ② | 100 (50) |
| orange       | 262-326   | 100 (50) |
| green-yellow | 262-327   | 100 (50) |

Space-saving 4-conductor end terminal block; without protruding snap-in mounting foot; for terminal strips with snap-in mounting feet

|              |           |          |
|--------------|-----------|----------|
| gray         | 262-351   | 100 (50) |
| blue         | 262-354 ② | 100 (50) |
| orange       | 262-356   | 100 (50) |
| green-yellow | 262-357   | 100 (50) |

**Accessories; item-specific**  
Test plug module; snaps together; 7 mm wide

|      |         |          |
|------|---------|----------|
| gray | 249-137 | 100 (25) |
|------|---------|----------|

End plate; with mounting flange

|      |         |          |
|------|---------|----------|
| gray | 262-361 | 300 (50) |
|------|---------|----------|

End plate; with snap-in mounting foot

|      |         |          |
|------|---------|----------|
| gray | 262-371 | 300 (50) |
|------|---------|----------|

Comb-style jumper bar; insulated; reduces maximum conductor size to 2.5 mm<sup>2</sup>; I<sub>N</sub> 16 A; gray

|       |         |    |
|-------|---------|----|
| 2-way | 262-402 | 25 |
|-------|---------|----|

Operating tool; insulated; for comb-style jumper bar

|       |         |   |
|-------|---------|---|
| 2-way | 209-132 | 1 |
|-------|---------|---|

**Accessories; item-specific**  
Test plug module; snaps together; 12 mm wide

|      |         |          |
|------|---------|----------|
| gray | 249-140 | 100 (25) |
|------|---------|----------|

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

|     |         |    |
|-----|---------|----|
| red | 210-136 | 50 |
|-----|---------|----|

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

|        |         |    |
|--------|---------|----|
| yellow | 210-137 | 50 |
|--------|---------|----|

Aluminum DIN-rail; 1000 mm long; 18 mm wide; 7 mm high

|         |   |
|---------|---|
| 210-154 | 1 |
|---------|---|

Plastic end stop; with WSB marker slot; for aluminum DIN-rail (210-154); 6 mm wide

|         |    |
|---------|----|
| 209-122 | 25 |
|---------|----|

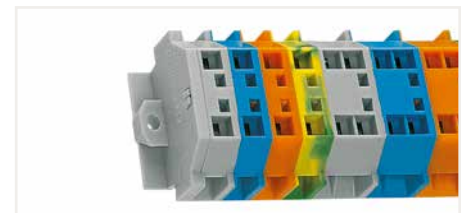
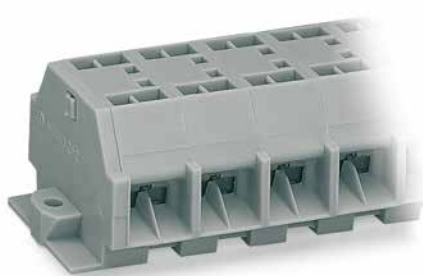
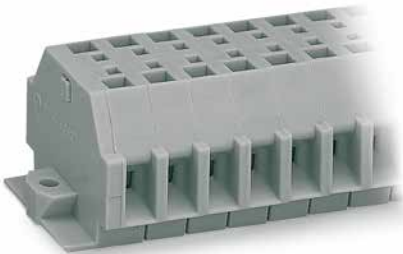
4

# Terminal Strip ▶ with mounting flanges or snap-in mounting feet 4 mm<sup>2</sup> ▶ 262 Series

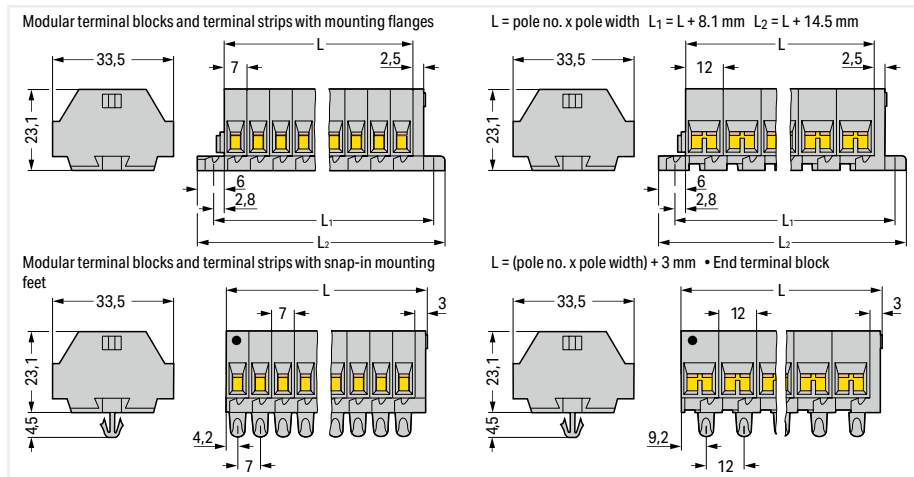
| Technical Data                   |               |
|----------------------------------|---------------|
| 0.08 ... 4 mm <sup>2</sup>       | 28 ... 12 AWG |
| 630 V / 8 kV / 3 ❶               | 300 V, 20 A ❷ |
| I <sub>N</sub> 24 A              | 300 V, 20 A ❸ |
| Pole width: 7 mm / 0.276 inch    |               |
| 9 ... 10 mm / 0.35 ... 0.39 inch |               |

| Technical Data                   |               |
|----------------------------------|---------------|
| 0.08 ... 4 mm <sup>2</sup>       | 28 ... 12 AWG |
| 630 V / 8 kV / 3 ❶               | 300 V, 20 A ❷ |
| I <sub>N</sub> 32 A              | 300 V, 20 A ❸ |
| Pole width: 12 mm / 0.472 inch   |               |
| 9 ... 10 mm / 0.35 ... 0.39 inch |               |

- ❶ 630 V = rated voltage  
8 kV = rated impulse voltage  
3 = pollution degree
  - ❷ Terminal strips with a blue insulated housing are suitable for Ex i applications.  
Item no. suffixes .../000-006 (upon request)
  - ❸ Longer strips and/or mixed-color assemblies are available upon request.
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



Dimensions in mm



Terminal strip; with mounting flanges; for screw similar similar mounting types; 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN35 rail)



Terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter (also for 210-154 Aluminum DIN-Rail or with 209-120 Mounting Foot for DIN-35 rail)

2-conductor terminal strip; with mounting flanges; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray ❷

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 262-102  | 100        |
| ○ 3      | 262-103  | 100        |
| ○ 4      | 262-104  | 100        |
| ○ 5      | 262-105  | 100        |
| ○ 6      | 262-106  | 100        |
| ○ 7      | 262-107  | 100        |
| ○ 8      | 262-108  | 100        |
| ○ 9      | 262-109  | 50         |
| ○ 10     | 262-110  | 25         |
| ○ 11     | 262-111  | 25         |
| ○ 12 ❸   | 262-112  | 25         |

4-conductor terminal strip; with mounting flanges; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray ❷

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 262-202  | 100        |
| ○ 3      | 262-203  | 100        |
| ○ 4      | 262-204  | 100        |
| ○ 5      | 262-205  | 100        |
| ○ 6      | 262-206  | 50         |
| ○ 7      | 262-207  | 50         |
| ○ 8      | 262-208  | 50         |
| ○ 9      | 262-209  | 50         |
| ○ 10     | 262-210  | 25         |
| ○ 11     | 262-211  | 25         |
| ○ 12 ❸   | 262-212  | 25         |

2-conductor terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail; gray ❷

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 262-152  | 100        |
| ○ 3      | 262-153  | 100        |
| ○ 4      | 262-154  | 100        |
| ○ 5      | 262-155  | 100        |
| ○ 6      | 262-156  | 50         |
| ○ 7      | 262-157  | 50         |
| ○ 8      | 262-158  | 50         |
| ○ 9      | 262-159  | 50         |
| ○ 10     | 262-160  | 25         |
| ○ 11     | 262-161  | 25         |
| ○ 12 ❸   | 262-162  | 25         |

4-conductor terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail; gray ❷

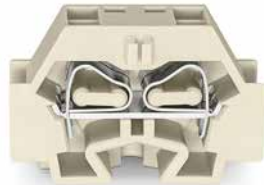
| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 262-252  | 100        |
| ○ 3      | 262-253  | 100        |
| ○ 4      | 262-254  | 100        |
| ○ 5      | 262-255  | 100        |
| ○ 6      | 262-256  | 50         |
| ○ 7      | 262-257  | 50         |
| ○ 8      | 262-258  | 50         |
| ○ 9      | 262-259  | 50         |
| ○ 10     | 262-260  | 25         |
| ○ 11     | 262-261  | 25         |
| ○ 12 ❸   | 262-262  | 25         |

## Modular Ex Terminal Block ▶ with mounting flange or snap-in mounting foot 4 mm<sup>2</sup> ▶ 262 Series

| Technical Data                          |               |
|---|---------------|
| 0.5 ... 4 mm <sup>2</sup>               | 28 ... 12 AWG |
| 550 V                                   | 300 V, 20 A   |
| I <sub>N</sub> 23 A                     | 300 V, 20 A   |
| Terminal block width: 7 mm / 0.276 inch |               |
| 9 ... 10 mm / 0.35 ... 0.39 inch        |               |

| Technical Data                           |               |
|--|---------------|
| 0.5 ... 4 mm <sup>2</sup>                | 28 ... 12 AWG |
| 550 V                                    | 300 V, 20 A   |
| I <sub>N</sub> 30 A                      | 300 V, 20 A   |
| Terminal block width: 12 mm / 0.472 inch |               |
| 9 ... 10 mm / 0.35 ... 0.39 inch         |               |

❶ Using crimped ferrules for corrosion protection, the rated cross-section is reduced by one size. For conductor types and conductor preparation, see Section 11 "Electrical Equipment for Hazardous Environments."



4

2-conductor Ex e II terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail

| Color      | Item No. | Pack. Unit |
|------------|----------|------------|
| light gray | 262-130  | 100 (50)   |

4-conductor Ex e II terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail

| Color      | Item No. | Pack. Unit |
|------------|----------|------------|
| light gray | 262-230  | 100 (50)   |

2-conductor Ex e II terminal block; with snap-in mounting foot; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail

|            |         |          |
|------------|---------|----------|
| light gray | 262-180 | 100 (50) |
|------------|---------|----------|

4-conductor Ex e II terminal block; with snap-in mounting foot; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail

|            |         |          |
|------------|---------|----------|
| light gray | 262-280 | 100 (50) |
|------------|---------|----------|

Space-saving 2-conductor Ex e II end terminal block; without protruding snap-in mounting foot; for terminal strips with snap-in mounting feet

|            |         |          |
|------------|---------|----------|
| light gray | 262-181 | 100 (50) |
|------------|---------|----------|

Space-saving 4-conductor Ex e II end terminal block; without protruding snap-in mounting foot; for terminal strips with snap-in mounting feet

|            |         |          |
|------------|---------|----------|
| light gray | 262-281 | 100 (50) |
|------------|---------|----------|

### Accessories; 262 Series

End plate; with mounting flange

|      |         |    |
|------|---------|----|
| gray | 262-363 | 50 |
|------|---------|----|

Mounting foot; for DIN-35 rail; snaps onto terminal blocks with snap-in mounting foot; 6.4 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-120 | 25 |
|------|---------|----|

End plate; with snap-in mounting foot

|      |         |    |
|------|---------|----|
| gray | 262-373 | 50 |
|------|---------|----|

Mounting screw; for mounting foot (209-120)

|      |         |          |
|------|---------|----------|
| gray | 209-119 | 500 (50) |
|------|---------|----------|

Comb-style jumper bar; insulated; reduces maximum conductor size to 2.5 mm<sup>2</sup>; I<sub>N</sub> 16 A; gray

|       |         |    |
|-------|---------|----|
| 2-way | 262-402 | 25 |
|-------|---------|----|

Mounting foot with screw; for DIN-35 rail; can be screwed on terminal blocks with mounting flange; 6.4 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-123 | 25 |
|------|---------|----|

Operating tool; insulated; for comb-style jumper bar

|       |         |   |
|-------|---------|---|
| 2-way | 209-132 | 1 |
|-------|---------|---|

Mounting adapter; for DIN-35 rail; can be used as an end stop; 6.5 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-137 | 25 |
|------|---------|----|

Aluminum DIN-rail; 1000 mm long; 18 mm wide; 7 mm high

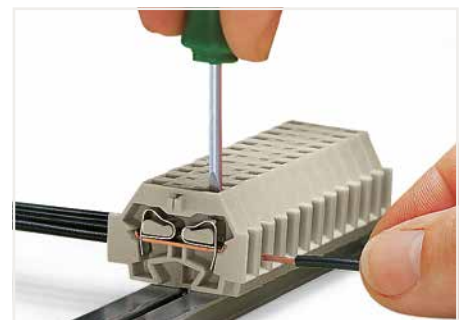
|  |         |   |
|--|---------|---|
|  | 210-154 | 1 |
|--|---------|---|

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

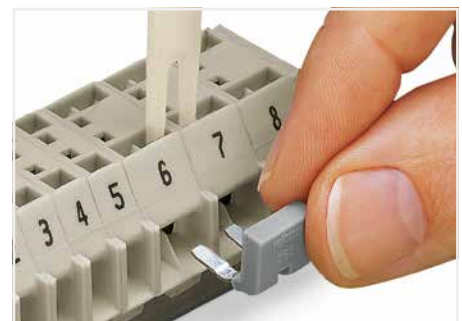
|         |   |
|---------|---|
| 210-720 | 1 |
|---------|---|

Plastic end stop; with WSB marker slot; for aluminum DIN-rail (210-154); 6 mm wide

|  |         |    |
|--|---------|----|
|  | 209-122 | 25 |
|--|---------|----|



CAGE CLAMP® connection  
Inserting a conductor.



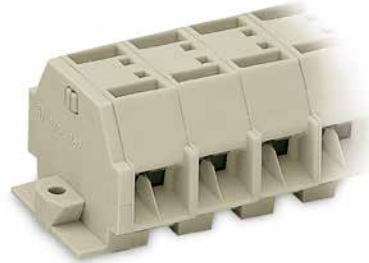
Commoning with comb-style jumper bar.

# Ex Terminal Strip ▶ with mounting flanges or snap-in mounting feet 4 mm<sup>2</sup> ▶ 262 Series

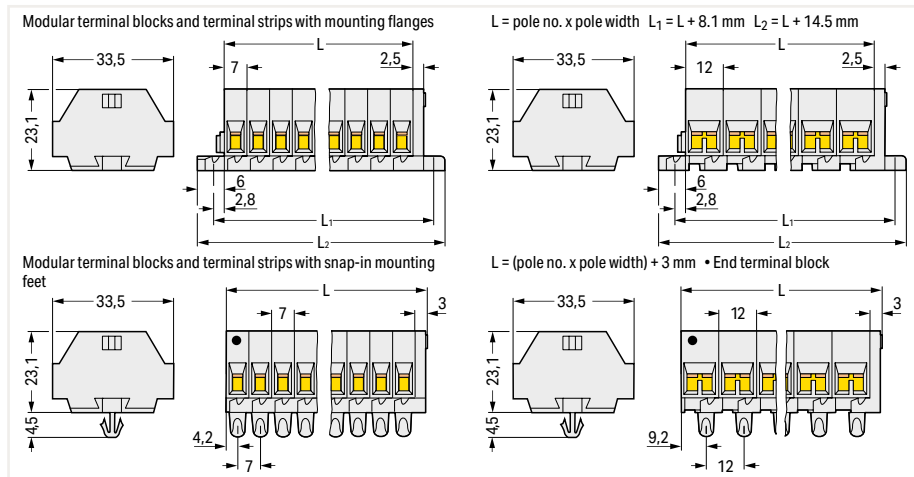
| Technical Data                   |               |
|----------------------------------|---------------|
| 0.5 ... 4 mm <sup>2</sup>        | 28 ... 12 AWG |
| 550 V                            | 300 V, 20 A   |
| I <sub>N</sub> 23 A              | 300 V, 20 A   |
| Pole width: 7 mm / 0.276 inch    |               |
| 9 ... 10 mm / 0.35 ... 0.39 inch |               |

| Technical Data                   |               |
|----------------------------------|---------------|
| 0.5 ... 4 mm <sup>2</sup>        | 28 ... 12 AWG |
| 550 V                            | 300 V, 20 A   |
| I <sub>N</sub> 30 A              | 300 V, 20 A   |
| Pole width: 12 mm / 0.472 inch   |               |
| 9 ... 10 mm / 0.35 ... 0.39 inch |               |

① Using crimped ferrules for corrosion protection, the rated cross-section is reduced by one size. For conductor types and conductor preparation, see Section 11 "Electrical Equipment for Hazardous Environments."



Dimensions in mm



Terminal strip; with mounting flanges; for screw similar similar mounting types; 3.2 mm mounting hole diameter (with 209-123 Mounting Foot for DIN35 rail)



Terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter (also for 210-154 Aluminum DIN-Rail or with 209-120 Mounting Foot for DIN-35 rail)

2-conductor Ex e II terminal strip; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 262-132  | 100        |
| ○ 3      | 262-133  | 100        |
| ○ 4      | 262-134  | 100        |
| ○ 5      | 262-135  | 100        |
| ○ 6      | 262-136  | 100        |
| ○ 7      | 262-137  | 50         |
| ○ 8      | 262-138  | 50         |
| ○ 9      | 262-139  | 50         |
| ○ 10     | 262-140  | 25         |
| ○ 11     | 262-141  | 25         |
| ○ 12     | 262-142  | 25         |

4-conductor Ex e II terminal strip; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter; with mounting foot (209-123) also for DIN-35 rail; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 262-232  | 100        |
| ○ 3      | 262-233  | 100        |
| ○ 4      | 262-234  | 100        |
| ○ 5      | 262-235  | 100        |
| ○ 6      | 262-236  | 50         |
| ○ 7      | 262-237  | 50         |
| ○ 8      | 262-238  | 50         |
| ○ 9      | 262-239  | 50         |
| ○ 10     | 262-240  | 25         |
| ○ 11     | 262-241  | 25         |
| ○ 12     | 262-242  | 25         |

2-conductor Ex e II terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 262-182  | 100        |
| ○ 3      | 262-183  | 100        |
| ○ 4      | 262-184  | 100        |
| ○ 5      | 262-185  | 100        |
| ○ 6      | 262-186  | 50         |
| ○ 7      | 262-187  | 50         |
| ○ 8      | 262-188  | 50         |
| ○ 9      | 262-189  | 50         |
| ○ 10     | 262-190  | 25         |
| ○ 11     | 262-191  | 25         |
| ○ 12     | 262-192  | 25         |

4-conductor Ex e II terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; also for aluminum DIN-rail (210-154) or with mounting foot (209-120) for DIN-35 rail; gray

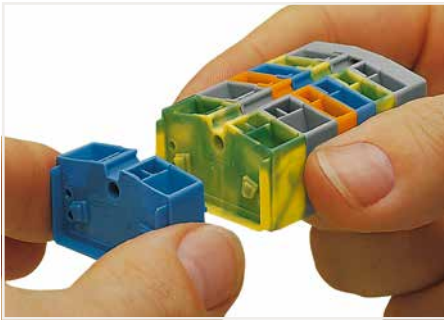
| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 262-282  | 100        |
| ○ 3      | 262-283  | 100        |
| ○ 4      | 262-284  | 100        |
| ○ 5      | 262-285  | 100        |
| ○ 6      | 262-286  | 50         |
| ○ 7      | 262-287  | 50         |
| ○ 8      | 262-288  | 50         |
| ○ 9      | 262-289  | 50         |
| ○ 10     | 262-290  | 25         |
| ○ 11     | 262-291  | 25         |
| ○ 12     | 262-292  | 25         |



# Modular Terminal Blocks and Terminal Strips

## 264 Series

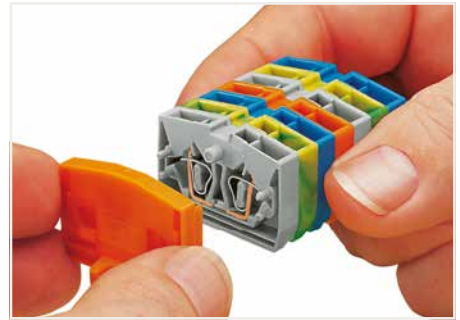
### Description and Installation



Assembling modular terminal blocks into terminal strips.



Mounting an "end terminal block" with mounting flange.

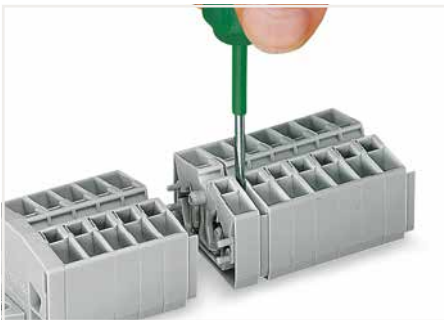


Mounting an end plate.

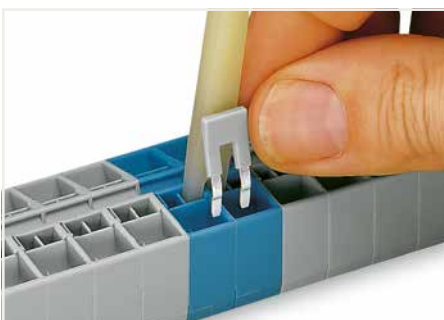
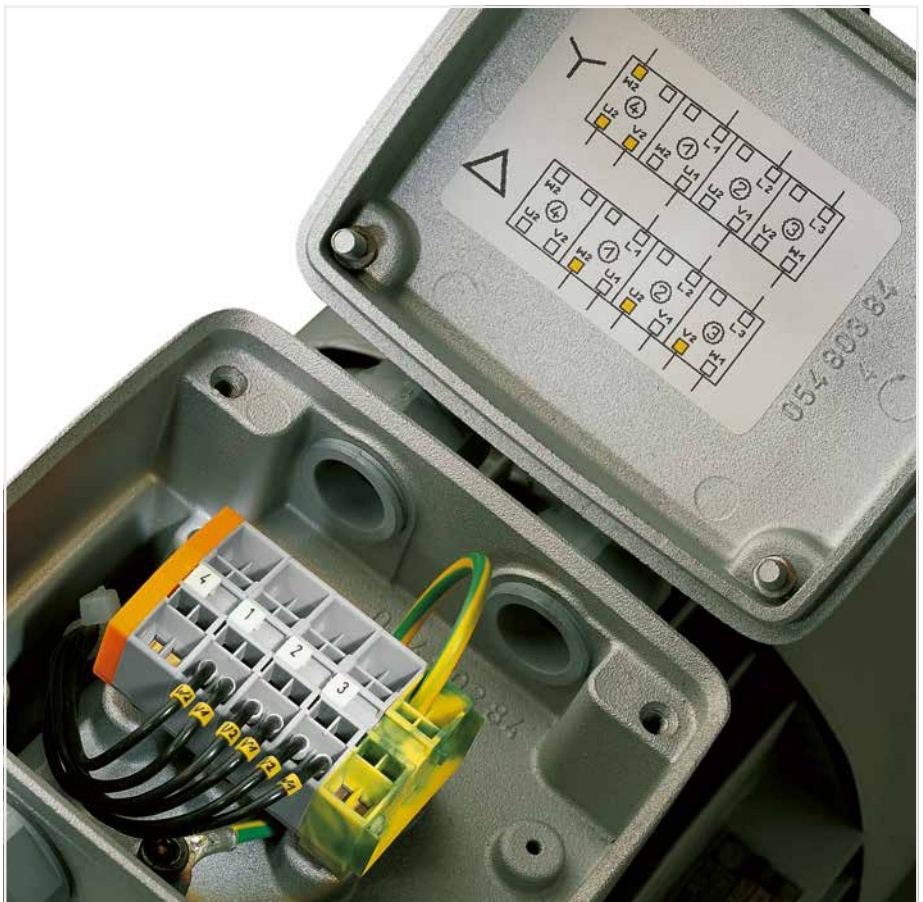
4



**CAGE CLAMP® connection**  
Inserting a conductor.  
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross-section.



Removing a terminal block.



Commoning with comb-style jumper bar.



Marking with a T-marker tag (209-290).



Combining 2- and 4-conductor terminal blocks.  
Marking via Mini-WSB Quick Marking System.



CAGE CLAMP® terminates the following copper conductors:  
solid



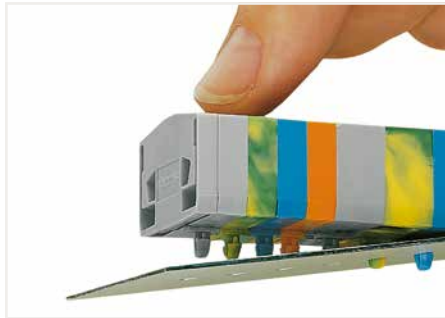
stranded



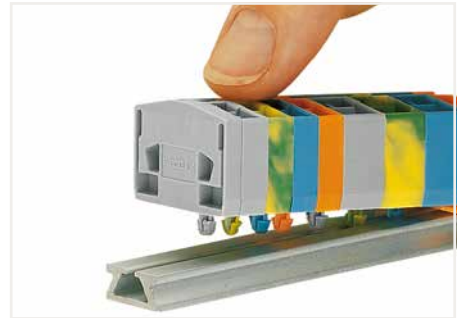
fine-stranded,  
also with tinned  
single strands



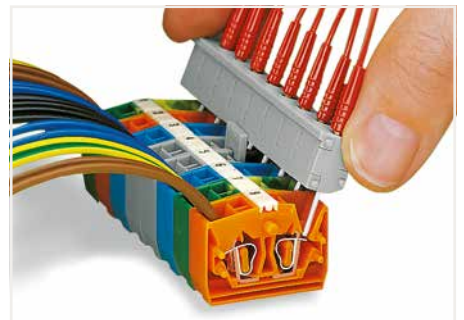
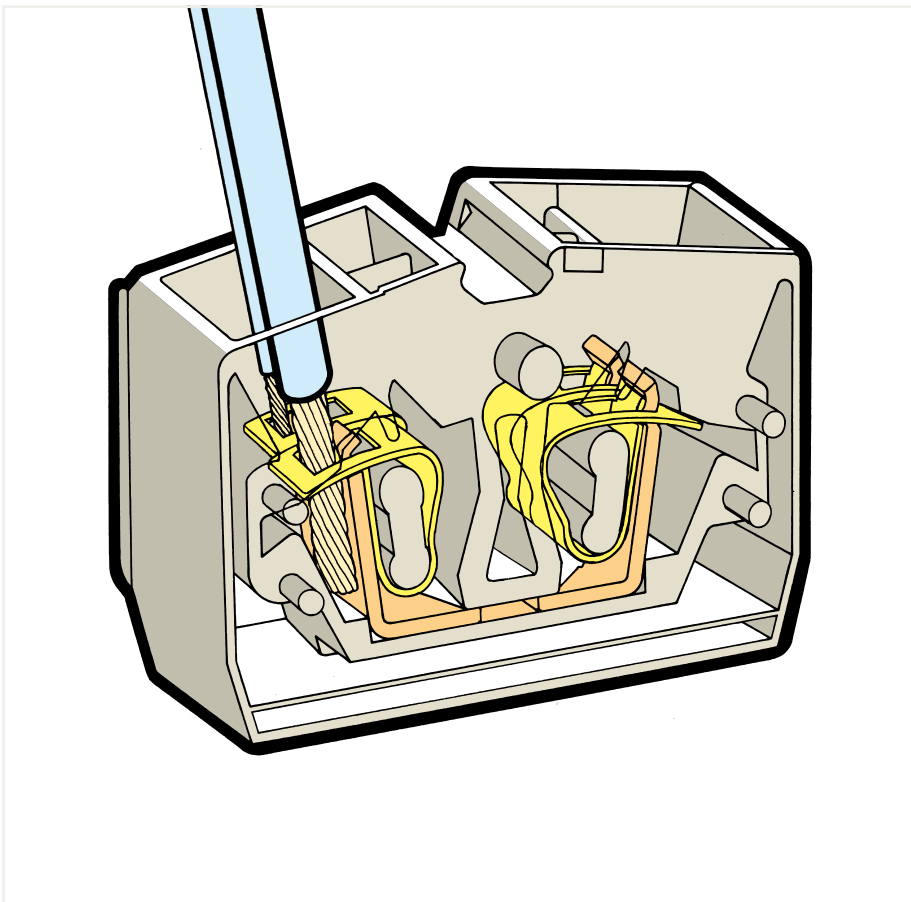
Terminal strip; with mounting flanges; screw mounting



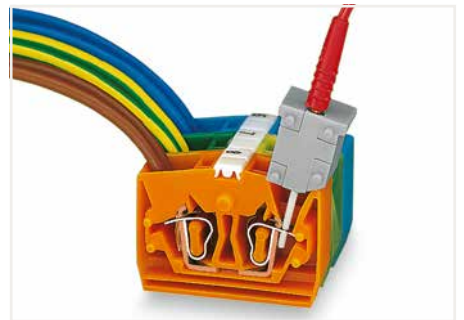
Mounting a terminal strip with snap-in feet into holes.



Mounting a terminal strip with snap-in feet onto aluminum rail.



Testing by touch contact to the CAGE CLAMP® spring (limited to 0.5 A and 48 V test voltage) – test pins are not protected against accidental contact.



Testing via CAGE CLAMP® on the current bar (max. nominal current: 6 A). CAGE CLAMP® clamps individual test contacts. The maximum test voltage is 400 V.



Ex e II terminal strip; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter



Ex e II terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

# Modular Terminal Block ▶ with mounting flange

## 2.5 mm<sup>2</sup> ▶ 264 Series

| Technical Data                          |                |
|---|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>            | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 ①                      | 300 V, 20 A ②  |
| I <sub>N</sub> 24 A                     | 600 V, 20 A ③  |
| Terminal block width: 6 mm / 0.236 inch |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch         |                |

| Technical Data                           |                |
|--|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>             | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 ①                       | 300 V, 20 A ②  |
| I <sub>N</sub> 24 A                      | 600 V, 20 A ③  |
| Terminal block width: 10 mm / 0.394 inch |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch          |                |

- \* 12 AWG: THHN, THWN
- 800 V = rated voltage  
8 kV = rated impulse voltage  
3 = pollution degree
  - Terminal blocks with a blue insulated housing are suitable for Ex i applications.
  - Terminal blocks with an Ex mark are suitable for Ex e II applications.  
0.5 ... 2.5 mm<sup>2</sup> / 20 ... 12 AWG\*  
690 V; 23 A
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



4

2-conductor center terminal block; required between end plate and end terminal block for terminal strips with mounting flanges

| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 264-321   | 100        |
| blue         | 264-324 ② | 100        |
| orange       | 264-326   | 100        |
| green-yellow | 264-327   | 100        |
| light gray ⑤ | 264-131 ③ | 100        |

4-conductor center terminal block; required between end plate and end terminal block for terminal strips with mounting flanges

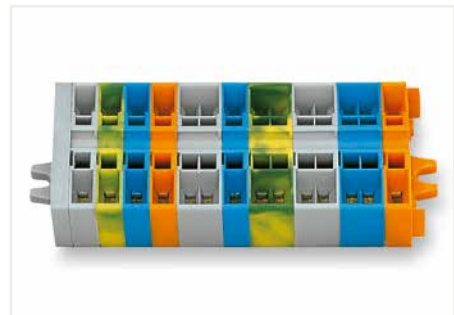
| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 264-351   | 100        |
| blue         | 264-354 ② | 100        |
| orange       | 264-356   | 100        |
| green-yellow | 264-357   | 100        |
| light gray ⑤ | 264-231 ③ | 100        |

2-conductor end terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter

| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 264-301   | 100        |
| blue         | 264-304 ② | 100        |
| orange       | 264-306   | 100        |
| green-yellow | 264-307   | 100        |
| light gray ⑤ | 264-130 ③ | 100        |

4-conductor end terminal block; with mounting flange; for screw or similar mounting types; 3.2 mm mounting hole diameter

| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 264-331   | 100        |
| blue         | 264-334 ② | 100        |
| orange       | 264-336   | 100        |
| green-yellow | 264-337   | 100        |
| light gray ⑤ | 264-230 ③ | 100        |



- Terminal strip with mounting flanges, consisting of:
- End plate; with mounting flange
  - Center terminal blocks
  - End terminal block; with mounting flange

Accessories; item-specific  
Alternate comb-style jumper bar; insulated; I<sub>N</sub> = I<sub>N</sub> of terminal block

| Configuration | Item No. | Pack. Unit |
|---------------|----------|------------|
| 2-way         | 281-492  | 100 (25)   |

Accessories; item-specific  
Alternate comb-style jumper bar; insulated; I<sub>N</sub> = I<sub>N</sub> of terminal block

| Configuration | Item No. | Pack. Unit |
|---------------|----------|------------|
| 2-way         | 280-492  | 200 (25)   |

Test plug module; snaps together; 6 mm wide

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| gray  | 249-136  | 100 (25)   |

Test plug module; snaps together; 10 mm wide

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| gray  | 249-139  | 100 (25)   |

Mini-WSB Marker Card; white; 10 strips with 10 markers/ card; Marker width: 5 mm

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| plain | 248-501  | 5          |

Mini-WSB Marker Card; white; 10 strips with 10 markers/ card; Marker width: 5 mm

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| plain | 264-900  | 5          |

Accessories; 264 Series

End and intermediate plate; 4 mm thick

| Color      | Item No. | Pack. Unit |
|------------|----------|------------|
| orange     | 264-361  | 25         |
| gray       | 264-364  | 25         |
| light gray | 264-363  | 25         |

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| red   | 210-136  | 50         |

Comb-style jumper bar; insulated; reduces maximum conductor size to 1.5 mm<sup>2</sup>; I<sub>N</sub> 16 A; gray

| Configuration | Item No. | Pack. Unit |
|---------------|----------|------------|
| 2-way         | 264-402  | 200 (25)   |

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

| Color  | Item No. | Pack. Unit |
|--------|----------|------------|
| yellow | 210-137  | 50         |

Operating tool; insulated

| Configuration | Item No. | Pack. Unit |
|---------------|----------|------------|
| 2-way         | 280-432  | 1          |

T-marker tag; 30 markers per tag; up to 6 characters per marker; stretchable 5 ... 6 mm

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| plain | 209-290  | 50         |



# Modular Terminal Block ▶ with snap-in mounting foot 2.5 mm<sup>2</sup> ▶ 264 Series

| Technical Data                          |                |
|---|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>            | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 ①                      | 300 V, 20 A ②  |
| I <sub>N</sub> 24 A                     | 600 V, 20 A ③  |
| Terminal block width: 6 mm / 0.236 inch |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch         |                |

| Technical Data                           |                |
|--|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>             | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 ①                       | 300 V, 20 A ②  |
| I <sub>N</sub> 24 A                      | 600 V, 20 A ③  |
| Terminal block width: 10 mm / 0.394 inch |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch          |                |

- \* 12 AWG: THHN, THWN
- 800 V = rated voltage  
8 kV = rated impulse voltage  
3 = pollution degree
  - Terminal blocks with a blue insulated housing are suitable for Ex i applications.
  - Terminal blocks with an Ex mark are suitable for Ex e II applications.  
0.5 ... 2.5 mm<sup>2</sup> / 20 ... 12 AWG\*  
690 V; 23 A
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



2-conductor center terminal block; required between end plate and end terminal block for terminal strips with mounting flanges

| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 264-311   | 100        |
| blue         | 264-314 ② | 100        |
| orange       | 264-316   | 100        |
| green-yellow | 264-317   | 100        |
| light gray ③ | 264-180 ③ | 100        |

4-conductor center terminal block; required between end plate and end terminal block for terminal strips with mounting flanges

| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 264-341   | 100        |
| blue         | 264-344 ② | 100        |
| orange       | 264-346   | 100        |
| green-yellow | 264-347   | 100        |
| light gray ③ | 264-280 ③ | 100        |

Accessories; item-specific  
Alternate comb-style jumper bar; insulated; I<sub>N</sub> = I<sub>N</sub> of terminal block

|  | 2-way | 281-492 | 100 (25) |
|--|-------|---------|----------|
|  |       |         |          |

Accessories; item-specific  
Alternate comb-style jumper bar; insulated; I<sub>N</sub> = I<sub>N</sub> of terminal block

|  | 2-way | 280-492 | 200 (25) |
|--|-------|---------|----------|
|  |       |         |          |

Test plug module; snaps together; 6 mm wide

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| gray  | 249-136  | 100 (25)   |

Test plug module; snaps together; 10 mm wide

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| gray  | 249-139  | 100 (25)   |

Mini-WSB Marker Card; white; 10 strips with 10 markers / card; Marker width: 5 mm

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| plain | 248-501  | 5          |

Mini-WSB Marker Card; white; 10 strips with 10 markers / card; Marker width: 5 mm

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| plain | 264-900  | 5          |

Accessories; 264 Series

Appropriate marking systems: Mini-WSR/Mini-WSR InLine/T-marker tag

| Color      | Item No. | Pack. Unit |
|------------|----------|------------|
| orange     | 264-371  | 25         |
| gray       | 264-374  | 25         |
| light gray | 264-373  | 25         |

Comb-style jumper bar; insulated; reduces maximum conductor size to 1.5 mm<sup>2</sup>; I<sub>N</sub> 16 A; gray

|  | 2-way | 264-402 | 200 (25) |
|--|-------|---------|----------|
|  |       |         |          |

Plastic end stop; with WSB marker slot; for aluminum DIN-rail (210-154); 6 mm wide

| Item No. | Pack. Unit |
|----------|------------|
| 209-122  | 25         |

Operating tool; insulated

|  | 2-way | 280-432 | 1 |
|--|-------|---------|---|
|  |       |         |   |

T-marker tag; 30 markers per tag; up to 6 characters per marker; stretchable 5 ... 6 mm

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| plain | 209-290  | 50         |

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

| Color | Item No. | Pack. Unit |
|-------|----------|------------|
| red   | 210-136  | 50         |

Operating tool with a partially insulated shaft; Type 2; (3.5 x 0.5) mm blade

| Item No. | Pack. Unit |
|----------|------------|
| 210-720  | 1          |

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

| Color  | Item No. | Pack. Unit |
|--------|----------|------------|
| yellow | 210-137  | 50         |



Terminal strip with mounting flanges, consisting of:  
End plate  
• 4-conductor terminal block; with snap-in mounting foot<sup>1)</sup>  
• Center terminal blocks  
• 2-conductor terminal block; with snap-in mounting foot<sup>1)</sup>  
<sup>1)</sup> at every 4th or 5th terminal block of the strip

# Terminal Strip ▶ with mounting flanges or snap-in mounting feet 2.5 mm<sup>2</sup> ▶ 264 Series

| Technical Data                  |                |
|---------------------------------|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>    | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 Ⓢ              | 300 V, 20 A    |
| I <sub>N</sub> 24 A             | 600 V, 20 A Ⓢ  |
| Pole width: 6 mm / 0.236 inch   |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch |                |

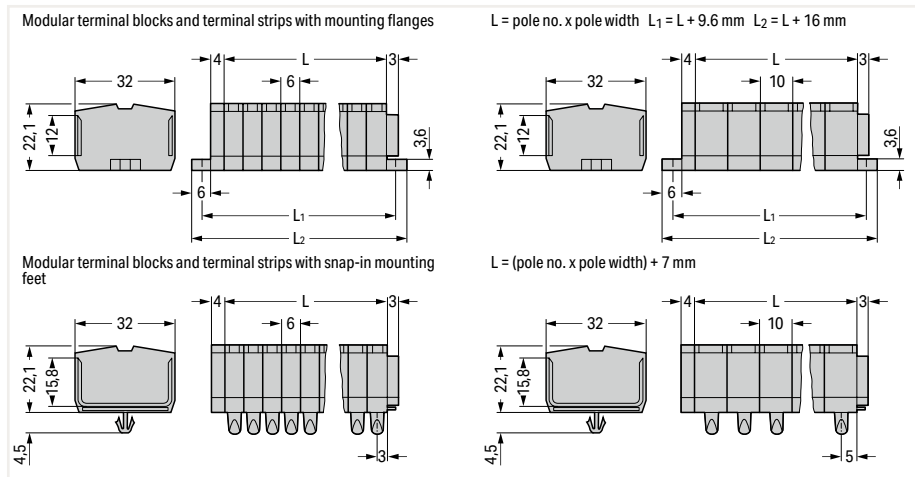
| Technical Data                  |                |
|---------------------------------|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>    | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 Ⓢ              | 300 V, 20 A    |
| I <sub>N</sub> 24 A             | 600 V, 20 A Ⓢ  |
| Pole width: 10 mm / 0.394 inch  |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch |                |

| Technical Data                  |                |
|---------------------------------|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>    | 28 ... 12 AWG* |
| 690 V Ⓢ                         | 300 V, 20 A    |
| I <sub>N</sub> 23 A             | 600 V, 20 A Ⓢ  |
| Pole width: 6 mm / 0.236 inch   |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch |                |



4

Dimensions in mm



2-conductor terminal strip; with mounting flanges; for screw or similar mounting types; 3.2 mm mounting hole diameter; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 2        | 264-102  | 100        |
| 3        | 264-103  | 100        |
| 4        | 264-104  | 100        |
| 5        | 264-105  | 100        |
| 6        | 264-106  | 100        |
| 7        | 264-107  | 100        |
| 8        | 264-108  | 100        |
| 9        | 264-109  | 50         |
| 10       | 264-110  | 50         |
| 11       | 264-111  | 50         |
| 12 Ⓢ     | 264-112  | 25         |

4-conductor terminal strip; with mounting flanges; for screw or similar mounting types; 3.2 mm mounting hole diameter; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 2        | 264-202  | 100        |
| 3        | 264-203  | 100        |
| 4        | 264-204  | 100        |
| 5        | 264-205  | 100        |
| 6        | 264-206  | 100        |
| 7        | 264-207  | 100        |
| 8        | 264-208  | 100        |
| 9        | 264-209  | 50         |
| 10       | 264-210  | 50         |
| 11       | 264-211  | 25         |
| 12 Ⓢ     | 264-212  | 25         |

2-conductor Ex e II terminal strip; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter; light gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 2        | 264-132  | 100        |
| 3        | 264-133  | 100        |
| 4        | 264-134  | 100        |
| 5        | 264-135  | 100        |
| 6        | 264-136  | 100        |
| 7        | 264-137  | 100        |
| 8        | 264-138  | 100        |
| 9        | 264-139  | 50         |
| 10       | 264-140  | 50         |
| 11       | 264-141  | 25         |
| 12 Ⓢ     | 264-142  | 25         |

2-conductor terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 2        | 264-152  | 100        |
| 3        | 264-153  | 100        |
| 4        | 264-154  | 100        |
| 5        | 264-155  | 100        |
| 6        | 264-156  | 50         |
| 7        | 264-157  | 50         |
| 8        | 264-158  | 50         |
| 9        | 264-159  | 50         |
| 10       | 264-160  | 25         |
| 11       | 264-161  | 25         |
| 12 Ⓢ     | 264-162  | 25         |

4-conductor terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 2        | 264-252  | 100        |
| 3        | 264-253  | 100        |
| 4        | 264-254  | 100        |
| 5        | 264-255  | 100        |
| 6        | 264-256  | 50         |
| 7        | 264-257  | 50         |
| 8        | 264-258  | 50         |
| 9        | 264-259  | 50         |
| 10       | 264-260  | 25         |
| 11       | 264-261  | 25         |
| 12 Ⓢ     | 264-262  | 25         |

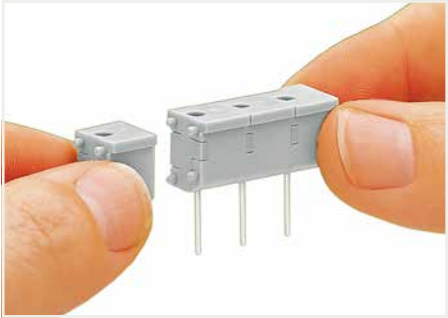
2-conductor Ex e II terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; light gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 2        | 264-182  | 100        |
| 3        | 264-183  | 100        |
| 4        | 264-184  | 100        |
| 5        | 264-185  | 100        |
| 6        | 264-186  | 50         |
| 7        | 264-187  | 50         |
| 8        | 264-188  | 50         |
| 9        | 264-189  | 50         |
| 10       | 264-190  | 25         |
| 11       | 264-191  | 25         |
| 12 Ⓢ     | 264-192  | 25         |

| Technical Data                  |                |
|---------------------------------|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>    | 28 ... 12 AWG* |
| 690 V ②                         | 300 V, 20 A ③  |
| I <sub>N</sub> 23 A             | 600 V, 20 A ③  |
| Pole width: 10 mm / 0.394 inch  |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch |                |



- \* 12 AWG: THHN, THWN
  - ① 800 V = rated voltage  
8 kV = rated impulse voltage  
3 = pollution degree
  - ② Suitable for Ex e II applications
  - ③ Longer strips and/or mixed-color assemblies are available upon request.
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



Snapping individual modules together to assemble a multi-pole test plug module.



Item no. suffixes for gray terminal strips with mounting flanges:  
264-102 to 264-112  
264-202 to 264-212

blue.../000-006,  
Terminal strips with a blue insulated housing are suitable for Ex i applications.



Item no. suffixes for gray terminal strips with snap-in mounting feet:  
264-152 to 264-162  
264-252 to 264-262

blue.../000-006,  
Terminal strips with a blue insulated housing are suitable for Ex i applications.

4-conductor Ex e II terminal strip; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter; light gray

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| ○ 2      | 264-232  | 100        |
| ○ 3      | 264-233  | 100        |
| ○ 4      | 264-234  | 100        |
| ○ 5      | 264-235  | 100        |
| ○ 6      | 264-236  | 100        |
| ○ 7      | 264-237  | 100        |
| ○ 8      | 264-238  | 100        |
| ○ 9      | 264-239  | 50         |
| ○ 10     | 264-240  | 50         |
| ○ 11     | 264-241  | 100        |
| ○ 12 ③   | 264-242  | 25         |



Ex e II terminal strip; with mounting flanges; for screw similar mounting types; 3.2 mm mounting hole diameter



Ex e II terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter

4-conductor Ex e II terminal strip; with snap-in mounting feet; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter; light gray

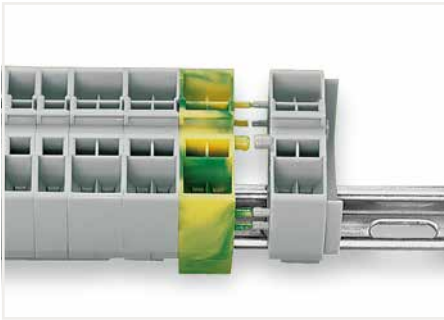
|        |         |     |
|--------|---------|-----|
| ○ 2    | 264-282 | 100 |
| ○ 3    | 264-283 | 100 |
| ○ 4    | 264-284 | 100 |
| ○ 5    | 264-285 | 100 |
| ○ 6    | 264-286 | 100 |
| ○ 7    | 264-287 | 50  |
| ○ 8    | 264-288 | 50  |
| ○ 9    | 264-289 | 50  |
| ○ 10   | 264-290 | 25  |
| ○ 11   | 264-291 | 25  |
| ○ 12 ③ | 264-292 | 25  |



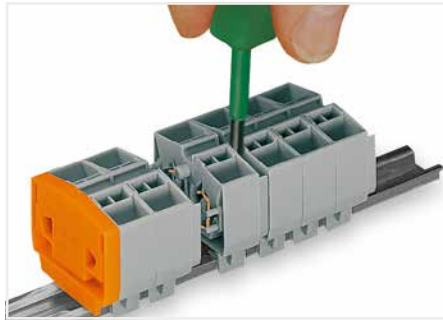
## Miniature Rail-Mount Terminal Blocks ▶ for DIN-35 and DIN-15 rails

### 264 Series

#### Description and Installation



Quick assembly keys prevent reverse mounting.



Separate terminal strip and slide individual terminal block laterally.

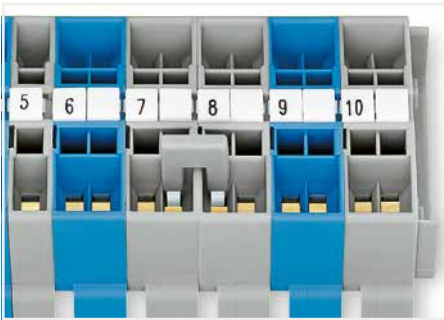


Remove terminal block from the DIN-rail with a levering action.

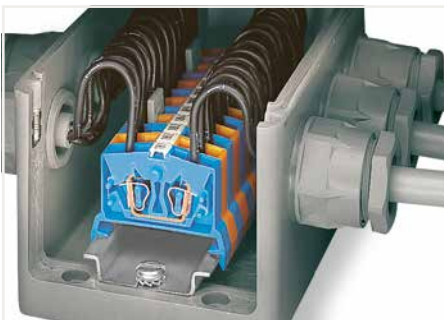
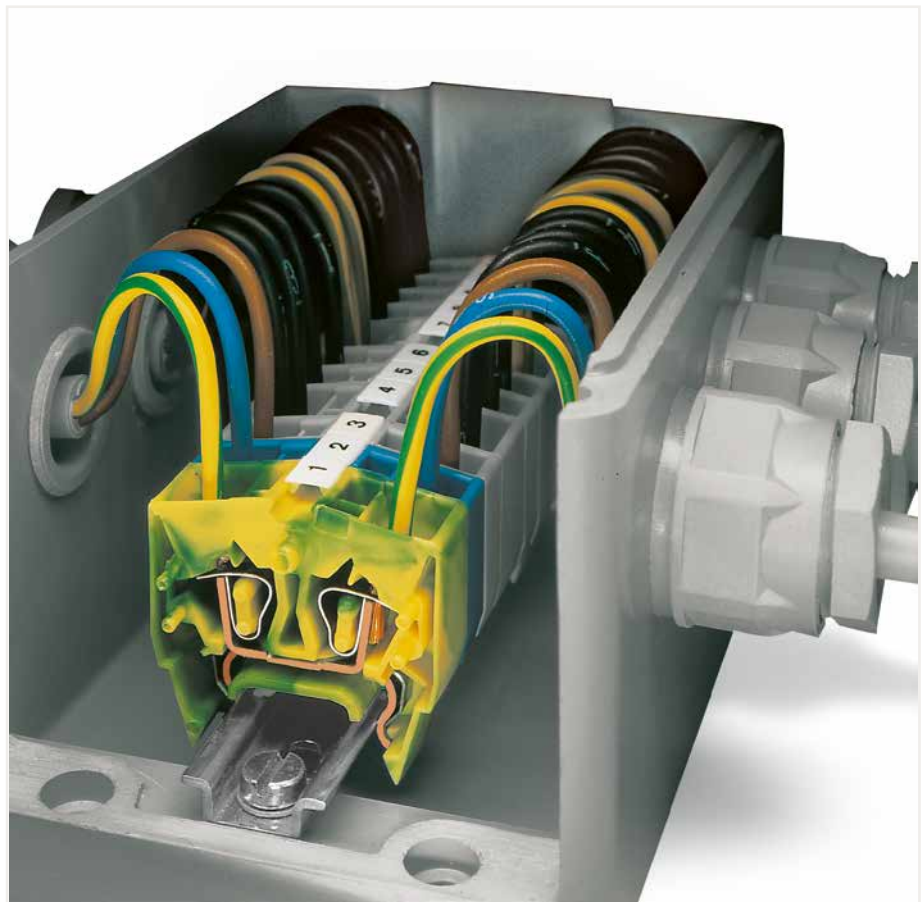
4



Commoning with comb-style jumper bar.



Commoning with comb-style jumper bar.



Easy-to-use miniature blocks that require minimal enclosure space.



Combining 2- and 4-conductor terminal blocks.



Marking via Mini-WSB Quick Marking System.



CAGE CLAMP® terminates the following copper conductors: solid



stranded

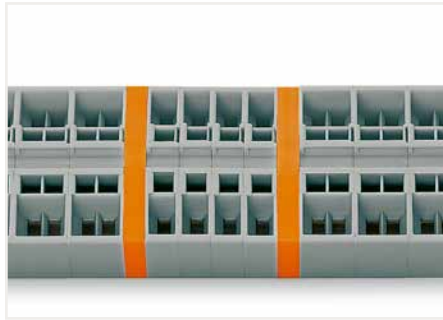


fine-stranded, also with tinned single strands

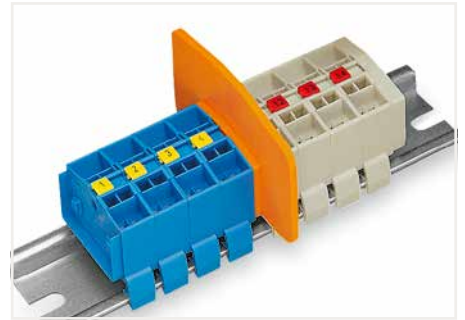
**CAGE CLAMP®**



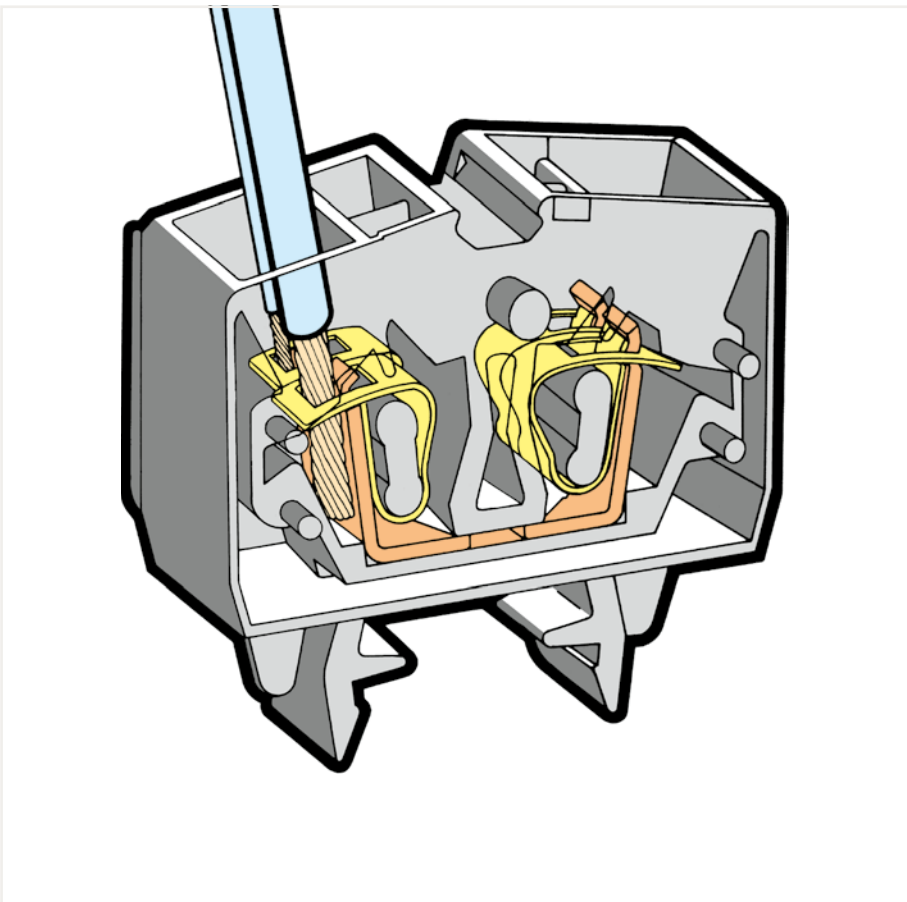
**CAGE CLAMP® connection**  
Inserting a conductor.  
With ferruled conductors, it is necessary to use a terminal block one size smaller than the conductor's nominal cross-section.



Separating groups via intermediate plates.



Ex e/Ex i separator plate for miniature rail-mount terminal blocks



Testing by touch contact to the CAGE CLAMP® spring (limited to 0.5 A and 48 V test voltage) – test pins are not protected against accidental contact.



Testing via CAGE CLAMP® on the current bar (max. nominal current: 6 A) – CAGE CLAMP® clamps individual test contacts. The maximum test voltage is 400 V.



Marking with a T-marker tag (209-290).



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

4

# Miniature Through/Ground and Ex Terminal Block ▶ for DIN-35 rail

## 2.5 mm<sup>2</sup> ▶ 264 Series

| Technical Data                          |                |
|---|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>            | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 ❶                      | 300 V, 20 A ❷  |
| I <sub>N</sub> 24 A                     | 600 V, 20 A ❸  |
| Terminal block width: 6 mm / 0.236 inch |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch         |                |



2-conductor miniature through terminal block; for DIN-35 rail

| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 264-711   | 100        |
| blue         | 264-714 ❷ | 100        |
| orange       | 264-716   | 100        |
| light gray ❸ | 264-125 ❸ | 100        |

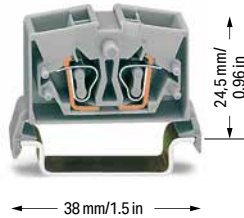
Accessories; item-specific  
Alternate comb-style jumper bar; insulated; I<sub>N</sub> = I<sub>N</sub> of terminal block

|       |         |          |
|-------|---------|----------|
| 2-way | 281-492 | 100 (25) |
|-------|---------|----------|

Test plug module; snaps together; 6 mm wide

|      |         |          |
|------|---------|----------|
| gray | 249-136 | 100 (25) |
|------|---------|----------|

| Technical Data                           |                |
|--|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>             | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 ❶                       | 300 V, 20 A ❷  |
| I <sub>N</sub> 24 A                      | 600 V, 20 A ❸  |
| Terminal block width: 10 mm / 0.394 inch |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch          |                |



4-conductor miniature through terminal block; for DIN-35 rail

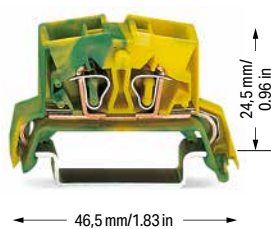
| Color        | Item No.  | Pack. Unit |
|--------------|-----------|------------|
| gray         | 264-731   | 100        |
| blue         | 264-734 ❷ | 100        |
| orange       | 264-736   | 100        |
| light gray ❸ | 264-225 ❸ | 100        |

Accessories; item-specific  
Alternate comb-style jumper bar; insulated; I<sub>N</sub> = I<sub>N</sub> of terminal block

|       |         |          |
|-------|---------|----------|
| 2-way | 280-492 | 200 (25) |
|-------|---------|----------|

Test plug module; snaps together; 10 mm wide

|      |         |          |
|------|---------|----------|
| gray | 249-139 | 100 (25) |
|------|---------|----------|



4-conductor miniature ground terminal block; for DIN-35 rail

| Color          | Item No.          | Pack. Unit |
|----------------|-------------------|------------|
| green-yellow   | 264-737           | 100        |
| green-yellow ❸ | 264-737/999-950 ❸ | 100        |

Accessories; item-specific  
Alternate comb-style jumper bar; insulated; I<sub>N</sub> = I<sub>N</sub> of terminal block

|       |         |          |
|-------|---------|----------|
| 2-way | 280-492 | 200 (25) |
|-------|---------|----------|

Test plug module; snaps together; 10 mm wide

|      |         |          |
|------|---------|----------|
| gray | 249-139 | 100 (25) |
|------|---------|----------|

\* 12 AWG: THHN, THWN

- ❶ 800 V = rated voltage  
8 kV = rated impulse voltage  
3 = pollution degree
- ❷ Terminal blocks with a blue insulated housing are suitable for Ex i applications.
- ❸ Terminal blocks with an Ex mark are suitable for Ex e II applications.  
0.5 ... 2.5 mm<sup>2</sup> / 20 ... 12 AWG\*  
690 V; 23 A

Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)

### Accessories; 264 Series

Appropriate marking systems:  
Mini-WSB/Mini-WSB Inline/T-marker tag

End and intermediate plate; 4 mm thick

|            |         |    |
|------------|---------|----|
| orange     | 264-369 | 25 |
| gray       | 264-368 | 25 |
| light gray | 264-370 | 25 |

Ex e/Ex i separator; orange; 4 mm thick

|       |         |    |
|-------|---------|----|
| 66 mm | 264-367 | 25 |
|-------|---------|----|

Comb-style jumper bar; insulated; reduces maximum conductor size to 1.5 mm<sup>2</sup>; I<sub>N</sub> 16 A; gray

|       |         |          |
|-------|---------|----------|
| 2-way | 264-402 | 200 (25) |
|-------|---------|----------|

Operating tool; insulated

|       |         |   |
|-------|---------|---|
| 2-way | 280-432 | 1 |
|-------|---------|---|

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

|     |         |    |
|-----|---------|----|
| red | 210-136 | 50 |
|-----|---------|----|

Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

|        |         |    |
|--------|---------|----|
| yellow | 210-137 | 50 |
|--------|---------|----|

Mini-WSB Marker Card; white; 10 strips with 10 markers/card; Marker width: 5 mm

|       |         |   |
|-------|---------|---|
| plain | 248-501 | 5 |
|-------|---------|---|

Screwless end stop; for DIN-35 rail; 6 mm wide

|      |         |          |
|------|---------|----------|
| gray | 249-116 | 100 (25) |
|------|---------|----------|

Steel DIN-rail; per EN 60715; 35 x 7.5 mm; 1 mm thick; 2 m long

|           |         |        |
|-----------|---------|--------|
| slotted   | 210-112 | 10 (1) |
| unslotted | 210-113 | 10     |

Aluminum DIN-rail; similar to EN 60715; 35 x 8.2 mm; 1.6 mm thick; 2 m long

|           |         |    |
|-----------|---------|----|
| unslotted | 210-196 | 10 |
|-----------|---------|----|

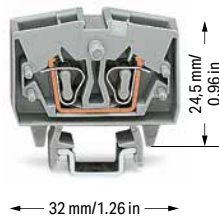
4



# Miniature Through/Ground and Ex Terminal Block ▶ for DIN-15 rail

## 2.5 mm<sup>2</sup> ▶ 264 Series

| Technical Data                          |                |
|---|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>            | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 ①                      | 300 V, 20 A    |
| I <sub>N</sub> 24 A                     | 600 V, 20 A    |
| Terminal block width: 6 mm / 0.236 inch |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch         |                |

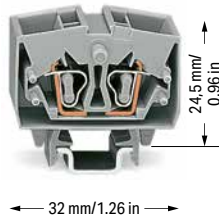


| 2-conductor miniature through terminal block; for DIN-15 rail |           |            |
|---|-----------|------------|
| Color   | Item No.  | Pack. Unit |
| gray  | 264-701   | 100        |
| blue  | 264-704 ② | 100        |
| orange  | 264-706   | 100        |
| light gray  | 264-120 ③ | 100        |

| Accessories; item-specific  |         |          |
|---|---------|----------|
| Alternate comb-style jumper bar; insulated; I <sub>N</sub> = I <sub>N</sub> of terminal block |         |          |
| 2-way   | 281-492 | 100 (25) |

| Test plug module; snaps together; 6 mm wide |         |          |
|---|---------|----------|
| gray  | 249-136 | 100 (25) |

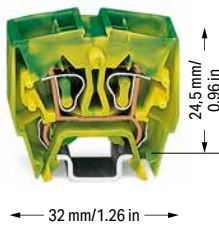
| Technical Data                           |                |
|--|----------------|
| 0.08 ... 2.5 mm <sup>2</sup>             | 28 ... 12 AWG* |
| 800 V / 8 kV / 3 ①                       | 300 V, 20 A    |
| I <sub>N</sub> 24 A                      | 600 V, 20 A    |
| Terminal block width: 10 mm / 0.394 inch |                |
| 8 ... 9 mm / 0.31 ... 0.35 inch          |                |



| 4-conductor miniature through terminal block; for DIN-15 rail |           |            |
|---|-----------|------------|
| Color   | Item No.  | Pack. Unit |
| gray  | 264-721   | 100        |
| blue  | 264-724 ② | 100        |
| orange  | 264-726   | 100        |
| light gray  | 264-220 ③ | 100        |

| Accessories; item-specific  |         |          |
|---|---------|----------|
| Alternate comb-style jumper bar; insulated; I <sub>N</sub> = I <sub>N</sub> of terminal block |         |          |
| 2-way   | 280-492 | 200 (25) |

| Test plug module; snaps together; 10 mm wide |         |          |
|--|---------|----------|
| gray   | 249-139 | 100 (25) |



| 4-conductor miniature ground terminal block; for DIN-15 rail |                   |            |
|--|-------------------|------------|
| Color  | Item No.          | Pack. Unit |
| green-yellow   | 264-727           | 100        |
| green-yellow   | 264-727/999-950 ③ | 100        |

| Accessories; item-specific  |         |          |
|---|---------|----------|
| Alternate comb-style jumper bar; insulated; I <sub>N</sub> = I <sub>N</sub> of terminal block |         |          |
| 2-way   | 280-492 | 200 (25) |

| Test plug module; snaps together; 10 mm wide |         |          |
|--|---------|----------|
| gray   | 249-139 | 100 (25) |

- \* 12 AWG: THHN, THWN
  - ① 800 V = rated voltage  
8 kV = rated impulse voltage  
3 = pollution degree
  - ② Terminal blocks with a blue insulated housing are suitable for Ex i applications.
  - ③ Terminal blocks with an Ex mark are suitable for Ex e II applications.  
0.5 ... 2.5 mm<sup>2</sup> / 20 ... 12 AWG\*  
690 V; 23 A
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)

**Accessories; 264 Series**  
Appropriate marking systems:  
Mini-WSB/Mini-WSB Inline/T-marker tag

| End and intermediate plate; 4 mm thick |            |         |    |
|--|------------|---------|----|
|  | orange     | 264-369 | 25 |
|  | gray       | 264-368 | 25 |
|  | light gray | 264-370 | 25 |

| Ex e/Ex i separator; orange; 4 mm thick |       |            |
|---|-------|------------|
|   | 66 mm | 264-367 25 |

| Comb-style jumper bar; insulated; reduces maximum conductor size to 1.5 mm <sup>2</sup> ; I <sub>N</sub> 16 A; gray |       |                  |
|---|-------|------------------|
|   | 2-way | 264-402 200 (25) |

| Operating tool; insulated |       |           |
|---------------------------|-------|-----------|
|                           | 2-way | 280-432 1 |

| Operating tool; insulated |       |           |
|---------------------------|-------|-----------|
|                           | 1-way | 209-130 1 |

| Test plug; with 500 mm cable; 2 mm Ø; max. 42 V |     |            |
|---|-----|------------|
|   | red | 210-136 50 |

| Test plug; with 500 mm cable; 2 mm Ø; max. 42 V |        |            |
|---|--------|------------|
|   | yellow | 210-137 50 |

| Screwless end stop; for DIN-15 rail; 6 mm wide |      |            |
|--|------|------------|
|  | gray | 249-101 25 |

| Steel DIN-rail; per EN 60715; 15 x 5.5 mm; 1 mm thick; 2 m long |           |                |
|---|-----------|----------------|
|   | slotted   | 210-111 10 (1) |
|   | unslotted | 210-295 10 (1) |

| Aluminum DIN-rail; similar to EN 60715; 15 x 5.5 mm; 1 mm thick; 2 m long |           |           |
|---|-----------|-----------|
|   | unslotted | 210-296 1 |

## WAGO Miniature Terminal Blocks TOPJOB® S – 2050/2250 Series Handling



Insert solid conductors or fine-stranded conductors with ferrules via push-in termination.



Insert fine-stranded conductors via operating tool.



Remove all conductors via operating tool.

4



Snapping a marking strip (2009-110) into a marker slot.



Testing via 2 mm Ø test plug (210-136), max. 42 V



Insert a push-in type jumper bar and push down until it hits the backstop (example shows a 2000-406/020-000 Delta Jumper).



Separate terminal block assembly and slide individual terminal blocks laterally using an operating tool.



Mounting a terminal strip with snap-in feet into drilled holes.



Terminal strip with mounting flanges for screw mounting



Marking strip (2009-110) inserted in the marking slot with jumper symbols of the inserted jumper – delta jumper (2000-406/020-000)

# WAGO Miniature Through/Ground Terminal Block TOPJOB® S – 2050/2250 Series

## 1 (1.5) mm<sup>2</sup>

| Illustration   | Description   | Color          | With Push-Button Item No. | Without Push-Button Item No. | Pack. Unit | Dimensions (W x H x D)                            | Electrical Data                                       |
|--|---|----------------|---------------------------|------------------------------|------------|---|---|
| <b>2-conductor through terminal block; for DIN-15 rail</b>   |   |                |                           |                              |            |   |   |
|  | 2-conductor through terminal block  | ○ gray         | 2250-1201                 | 2050-1201                    | 100        | 3.5 x 28 x 34 mm /<br>0.14 x 1.1 x 1.34 inch      | 500 V / 6 kV / 3 ①<br>I <sub>N</sub> 13.5 A (17.5 A); |
|  | 2-conductor through terminal block  | ● blue         | 2250-1204 ②               | 2050-1204 ②                  | 100        |   |   |
|  | 2-conductor ground terminal block   | ● green-yellow | 2250-1207                 | 2050-1207                    | 100        |   |   |
|  | End and intermediate plate; 1 mm thick  | ○ gray         | 2050-1291                 | 2050-1291                    | 25         | 1.1 x 25.2 x 32.5 mm /<br>0.04 x 0.99 x 1.28 inch |   |
| <b>2-conductor through terminal block; with mounting flange; for screw or similar mounting types; 4.2 mm mounting hole diameter</b>      |   |                |                           |                              |            |   |   |
|  | 2-conductor through terminal block  | ○ gray         | 2250-301                  | 2050-301                     | 100        | 3.5 x 27.2 x 33.2 mm /<br>0.14 x 1.1 x 1.31 inch  | 500 V / 6 kV / 3 ①<br>I <sub>N</sub> 13.5 A (17.5 A); |
|  | 2-conductor through terminal block  | ● blue         | 2250-304 ②                | 2050-304 ②                   | 100        |   |   |
|  | 2-conductor ground terminal block   | ● green-yellow | 2250-307                  | 2050-307                     | 100        |   |   |
|  | End and intermediate plate; 1 mm thick  | ○ gray         | 2050-381                  | 2050-381                     | 25         | 1.3 x 25.2 x 32.1 mm /<br>0.05 x 0.99 x 1.26 inch |   |
| <b>2-conductor through terminal block; with snap-in mounting foot; for 0.6 ... 1.2 mm plate thickness; 3.5 mm mounting hole diameter</b> |   |                |                           |                              |            |   |   |
|  | 2-conductor through terminal block  | ○ gray         | 2250-311                  | 2050-311                     | 100        | 3.5 x 27.2 x 33.2 mm /<br>0.14 x 1.1 x 1.31 inch  | 500 V / 6 kV / 3 ①<br>I <sub>N</sub> 13.5 A (17.5 A); |
|  | 2-conductor through terminal block  | ● blue         | 2250-314 ②                | 2050-314 ②                   | 100        |   |   |
|  | 2-conductor ground terminal block   | ● green-yellow | 2250-317                  | 2050-317                     | 100        |   |   |
|  | End and intermediate plate; 1 mm thick  | ○ gray         | 2050-391                  | 2050-391                     | 25         | 3.4 x 25.2 x 32.1 mm /<br>0.13 x 0.99 x 1.26 inch |   |
| <b>2-conductor through terminal block; Center terminal block; for 0.6 ... 1.2 mm plate thickness</b>                                     |   |                |                           |                              |            |   |   |
|  | 2-conductor through terminal block  | ○ gray         | 2250-321                  | 2050-321                     | 100        | 3.5 x 27.2 x 33.2 mm /<br>0.14 x 1.1 x 1.31 inch  | 500 V / 6 kV / 3 ①<br>I <sub>N</sub> 13.5 A (17.5 A); |
|  | 2-conductor through terminal block  | ● blue         | 2250-324 ②                | 2050-324 ②                   | 100        |   |   |
|  | 2-conductor ground terminal block   | ● green-yellow | 2250-327                  | 2050-327                     | 100        |   |   |
|  | End and intermediate plate; 1 mm thick  | ○ gray         | 2050-1291                 | 2050-1291                    | 25         | 1.1 x 25.2 x 32.5 mm /<br>0.04 x 0.99 x 1.28 inch |   |
| <b>Accessories</b>   |   |                |                           |                              |            |   |   |
|  | Mounting foot; snaps onto terminal blocks with snap-in mounting foot; 6.4 mm wide | ○ gray         | 209-120                   | 209-120                      | 25         |   |   |
|  | Aluminum DIN-rail; 1000 mm long; 18 mm wide; 7 mm high                            | ○ silver       | 210-154                   | 210-154                      | 1          |   |   |

4



Terminal blocks on a DIN-rail



Terminal blocks with a mounting flange



Terminal blocks with snap-in mounting feet

Conductor range: 0.14 ... 1.5 mm<sup>2</sup> "s+f-st"; Push-in termination:  
0.5 ... 1.5 mm<sup>2</sup> "s" and 0.5 ... 0.75 mm<sup>2</sup> "insulated fer-  
rules; 10 mm"; 24 ... 16 AWG;  
Strip length: 9 ... 11 mm / 0.35 ... 0.43 inch

- ① 500 V = rated voltage  
6 kV = rated impulse voltage  
3 = pollution degree
- ② Suitable for Ex i applications




Accessories: see page 38  
Marking: WMB/WMB Inline/Marking strips  
Suitable operating tool: see page 39





# WAGO Luminaire Connectors

## WAGO Luminaire Connectors

|   |  | Series | Page |
|---|--|--------|------|
|  | Pluggable Connection System with Phase Selection for Fluorescent Lighting Fixtures | 267    | 168  |
|  | Connectors for In-Line Mounting of Fluorescent Lighting Fixtures                   | 267    | 175  |
|  | Luminaire Disconnect Connectors  | 873    | 177  |

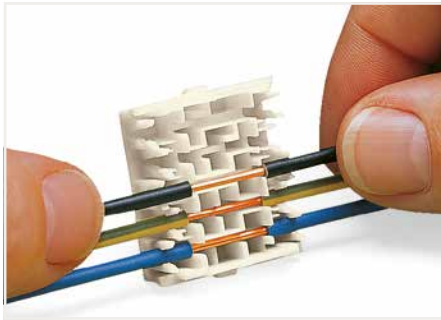
# Pluggable Connection System for Partially Stripped Conductors

## Description and Installation

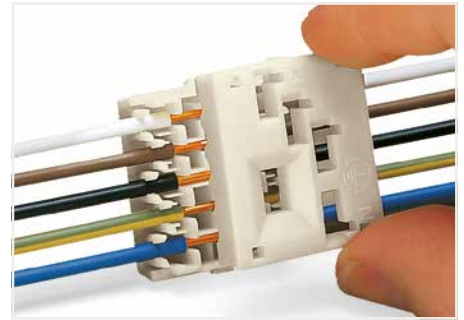
### 267 Series



- ❶ Socket with direct PE contact to lighting fixture panel
- ❷ Socket with PUSH WIRE® connection for ground conductors

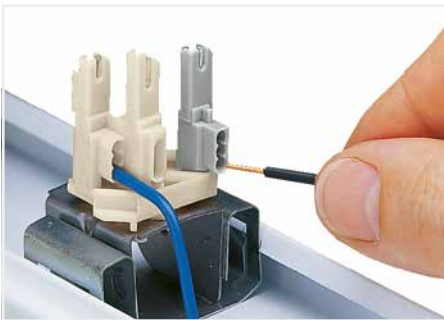


Snap the partially stripped conductor into the conductor support base. Conductor supports replace standard sockets.

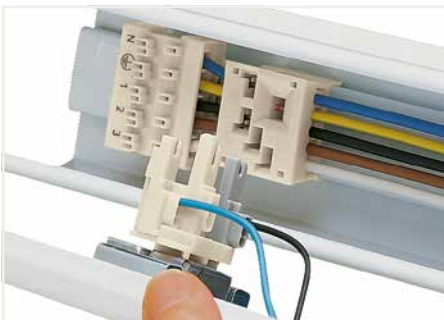


Latching the conductor support cover.

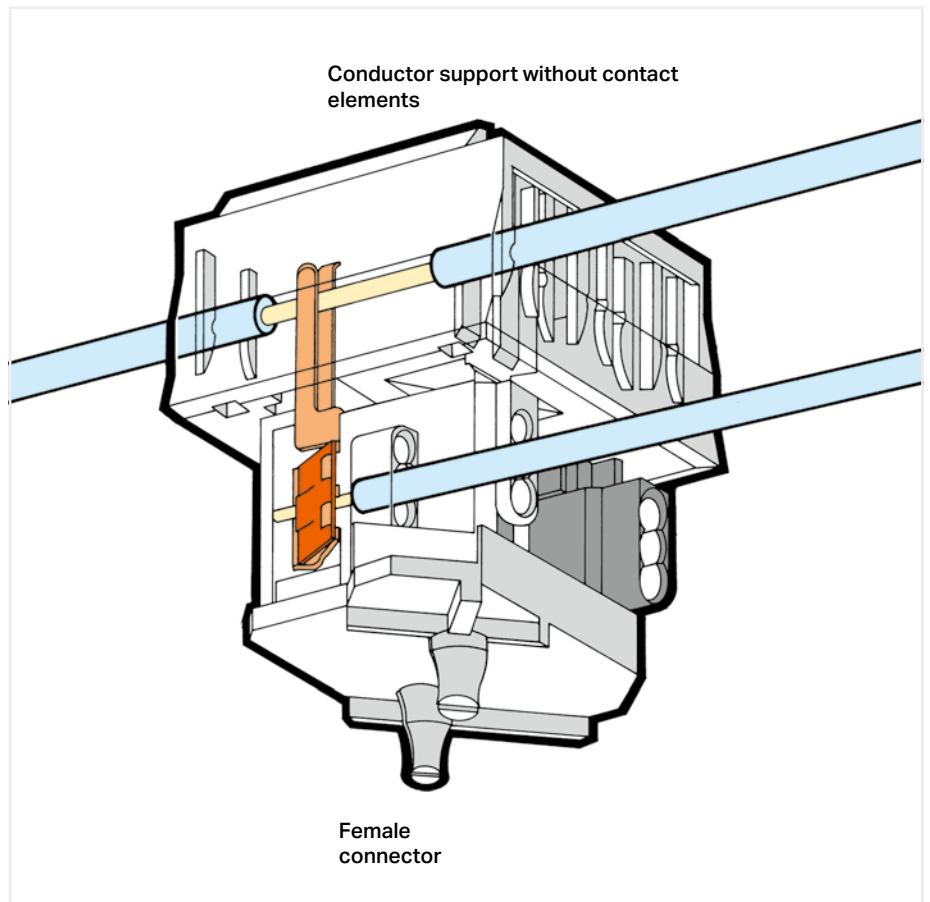
5



Conductor termination  
Insert the conductor until it hits the backstop!



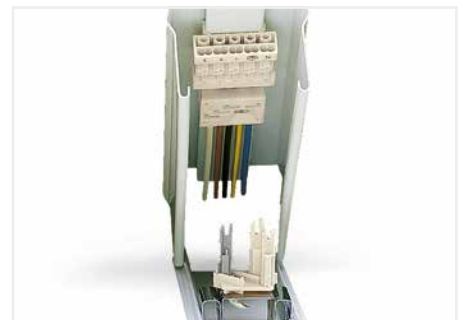
Inserting the socket into the conductor support.



Field-wiring terminal block with direct PE contact to lighting fixture panel



Terminal block matching the rail profile; shown here with a snap-in foot



Fluorescent lighting fixture with pluggable connector and field-wiring terminal block

# Pluggable Connection System with Insulation Displacement Connection (IDC) <sup>PUSH WIRE®</sup> Description and Installation 267 Series



Socket with PUSH WIRE® connection for ground conductors



Snap-on type socket, 2- to 4-pole



Securing the base socket to the snap-on type socket (system expansion: 7 + 4 poles).



IDC connection



System expansion assembly: socket and conductor support



System expansion assembly: conductor support



Conductor support cover with dovetail mount for snap-on type conductor support



Snap-on type conductor support, 4-pole



Securing the snap-on type conductor support to the cover (system expansion: 7 + 4 poles)

5

# Pluggable Connection System with Phase Selection for Fluorescent Lighting Fixtures

## Conductor Support

### 267 Series



#### 267 Series for Partially Stripped Conductors:

- Non-contacting conductor support
- Compact design

#### 267 Series with Insulation Displacement Connection (IDC):

- Flexible, modular 5- to 11-pole pluggable connection system
- IDC connection for through-wiring applications
- Future system expansions possible

| Electrical Data             | PUSH WIRE® Connection<br>(connector for in-line mounting of fluorescent lighting fixtures and snap-on type conductor support) | PUSH WIRE® Connection<br>(socket) | IDC (conductor support) |
|-----------------------------|---|-----------------------------------|-------------------------|
| Ratings per                 | IEC/EN 61984  | IEC/EN 61984                      | IEC/EN 61984            |
| Overvoltage category        | II  | II                                | II                      |
| Pollution degree            | 2   | 2                                 | 2                       |
| Rated voltage               | 500 V   | 500 V                             | 500 V                   |
| Rated surge voltage         | 4 kV  | 4 kV                              | 4 kV                    |
| Rated current               | 16 A  | 6 A                               | 6 A                     |
| Approvals per               | UL 1977   | UL 1977                           | UL 1977                 |
| Rated voltage               | 600 V   | 600 V                             | 600 V                   |
| Nominal current UL          | 15 A  | 6 A                               | 6 A                     |
| Material Data               |   |                                   |                         |
| Material group              | I   |                                   |                         |
| Insulation material         | Polyamide 6.6 (PA66)  |                                   |                         |
| Flammability class per UL94 | V0  |                                   |                         |
| Temperature stability       | 105 °C  |                                   |                         |
| Clamping spring material    | Chrome nickel spring steel (CrNi)   |                                   |                         |
| Contact material            | Electrolytic copper (E <sub>cu</sub> )  |                                   |                         |
| Contact plating             | Tin-plated  |                                   |                         |

# Pluggable Connection System with Phase Selection for Fluorescent Lighting Fixtures

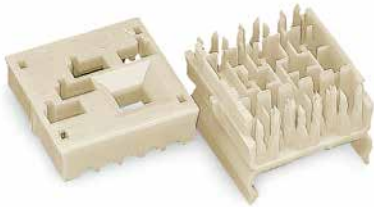
## Conductor Support for Partially Stripped Conductors

### 267 Series

| Technical Data                      |                          |
|-------------------------------------|--------------------------|
| 5 x 1.5 ... 2.5 mm <sup>2</sup> "s" | 5 x 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 6 A                  | 600 V / 6 A              |

| Technical Data                      |                          |
|-------------------------------------|--------------------------|
| 5 x 1.5 ... 2.5 mm <sup>2</sup> "s" | 5 x 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 6 A                  | 600 V / 6 A              |

| Technical Data                      |                          |
|-------------------------------------|--------------------------|
| 5 x 1.5 ... 2.5 mm <sup>2</sup> "s" | 5 x 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 6 A                  | 600 V / 6 A              |



Conductor support with snap-on foot; consisting of base and cover; with molded pole marking on cover (N ⊕ 1 2 3); white

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| Cover    |          |            |
| 5        | 267-140  | 500        |
| Base     |          |            |
| 5        | 267-141  | 500        |

Conductor support with dovetail; consisting of base and cover; with molded pole marking on cover (N ⊕ 1 2 3); white

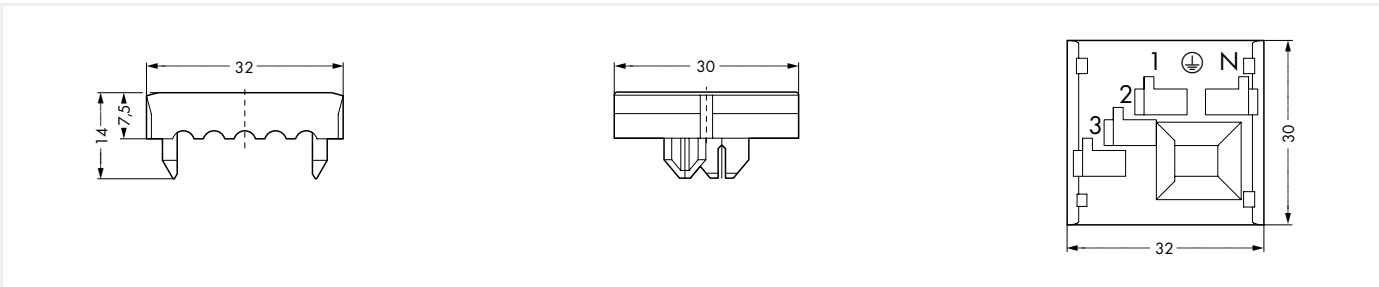
| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| Cover    |          |            |
| 5        | 267-140  | 500        |
| Base     |          |            |
| 5        | 267-143  | 500        |

Conductor support with custom foot; consisting of base and cover; with molded pole marking on cover (N ⊕ 1 2 3); white

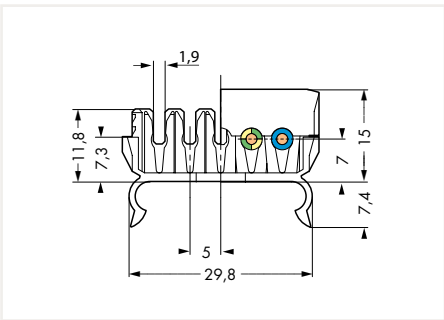
| Pole No. | Item No.  | Pack. Unit |
|----------|-----------|------------|
| Cover    |           |            |
| 5        | 267-140   | 500        |
| Base     |           |            |
| 5        | 267-xxx ① | 500        |

5

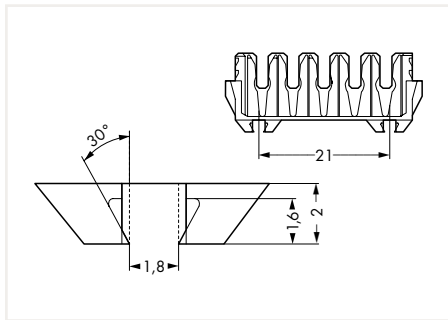
Dimensions in mm



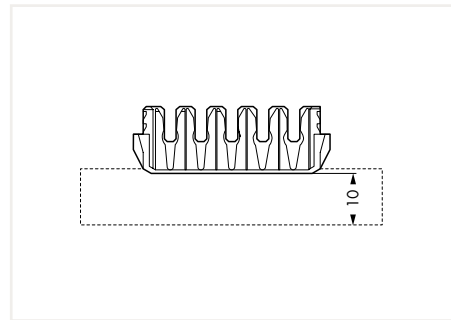
Dimensions in mm



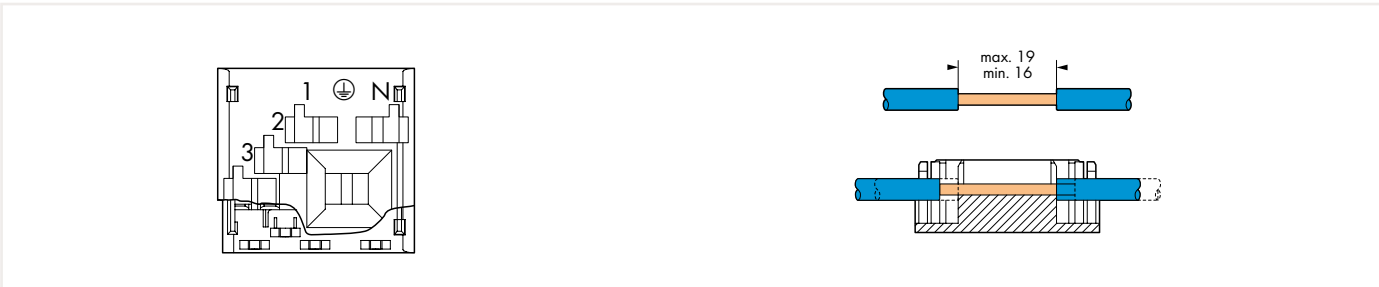
Dimensions in mm



Dimensions in mm



Dimensions in mm



① per customer specifications



# Pluggable Connection System with Phase Selection for Fluorescent Lighting Fixtures

## Socket for Partially Stripped Conductors

### 267 Series

| Technical Data                |                      |
|-------------------------------|----------------------|
| 0.5 ... 1 mm <sup>2</sup> "s" | 22 ... 18 AWG "sol." |
| 500 V / 4 kV / 6 A            | 600 V / 6 A          |
| 8 mm / 0.31 inch              |                      |

| Technical Data                |                      |
|-------------------------------|----------------------|
| 0.5 ... 1 mm <sup>2</sup> "s" | 22 ... 18 AWG "sol." |
| 500 V / 4 kV / 6 A            | 600 V / 6 A          |
| 8 mm / 0.31 inch              |                      |



Socket; with snap-in mounting feet and ground conductor connection; white/gray; with molded pole marking; gray socket for phase selection to 1 – 2 – 3 (not possible with 5-pole sockets)

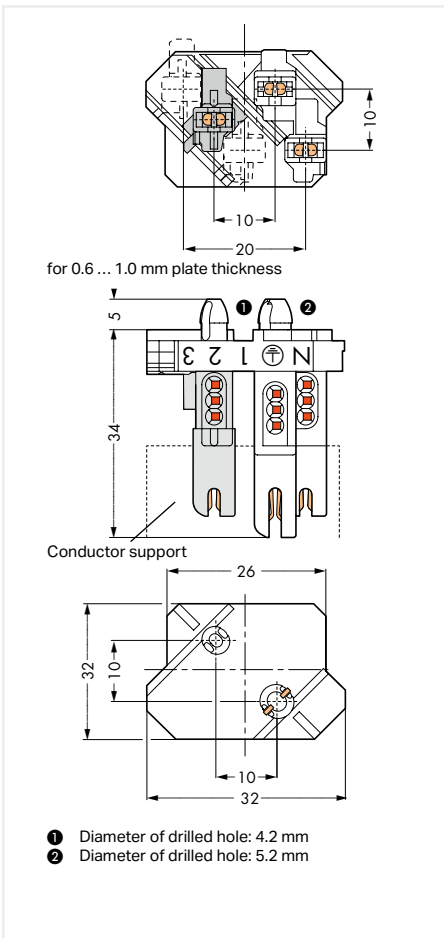
| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 3        | 267-113  | 500        |
| 4        | 267-114  | 500        |
| 5        | 267-115  | 500        |

Socket; with snap-in mounting feet and direct PE contact; white/gray; with molded pole marking; gray socket for phase selection to 1 – 2 – 3 (not possible with 5-pole sockets)

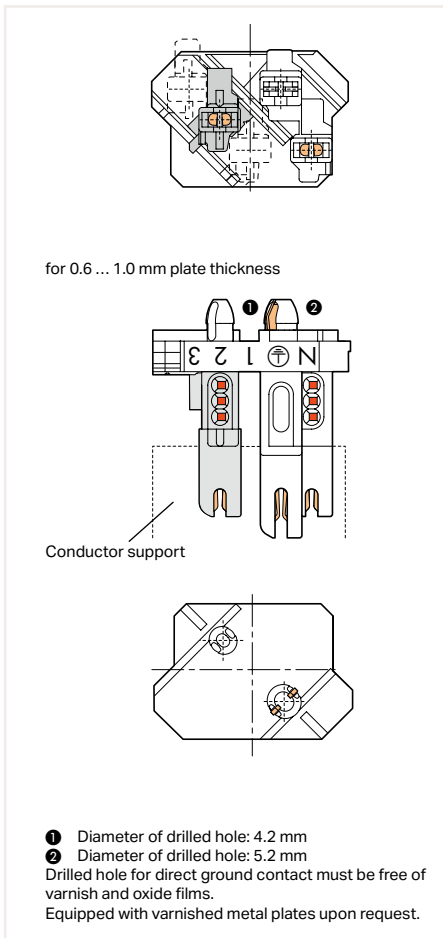
| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 3        | 267-123  | 500        |
| 4        | 267-124  | 500        |
| 5        | 267-125  | 500        |

5

Dimensions in mm



Dimensions in mm



# Pluggable Connection System with Phase Selection for Fluorescent Lighting Fixtures

## Conductor Support with Power Supply Connection

### 267 Series

| Technical Data                        |                          |
|---------------------------------------|--------------------------|
| 5 x 2/1.5 ... 2.5 mm <sup>2</sup> "s" | 5 x 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 6 A                    | 600 V / 6 A              |
| 11 ... 12 mm / 0.45 inch              |                          |

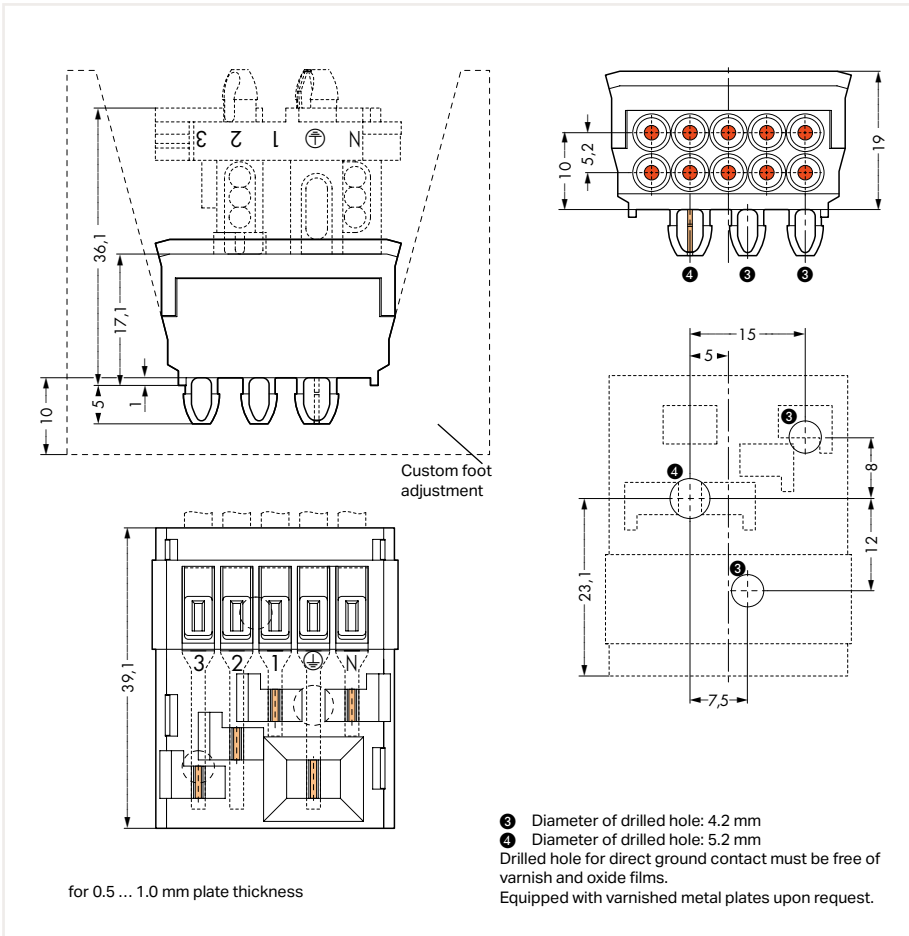
| Technical Data                        |                          |
|---------------------------------------|--------------------------|
| 5 x 2/1.5 ... 2.5 mm <sup>2</sup> "s" | 5 x 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 6 A                    | 600 V / 6 A              |
| 11 ... 12 mm / 0.45 inch              |                          |



| Conductor support; with field-wiring connection and snap-in mounting feet; white |                |          |            |
|--|----------------|----------|------------|
| Pole No.   | Marking        | Item No. | Pack. Unit |
| 3  | N, PE, 1       | 267-313  | 50         |
| 4  | N, PE, 1, 2    | 267-314  | 50         |
| 5  | N, PE, 1, 2, 3 | 267-315  | 50         |

| Conductor support; with field-wiring connection and snap-in mounting feet; with direct PE contact; white |                |          |            |
|--|----------------|----------|------------|
| Pole No.   | Marking        | Item No. | Pack. Unit |
| 3  | N, PE, 1       | 267-303  | 50         |
| 4  | N, PE, 1, 2    | 267-304  | 50         |
| 5  | N, PE, 1, 2, 3 | 267-305  | 50         |

5



# Pluggable Connection System with Phase Selection for Fluorescent Lighting Fixtures

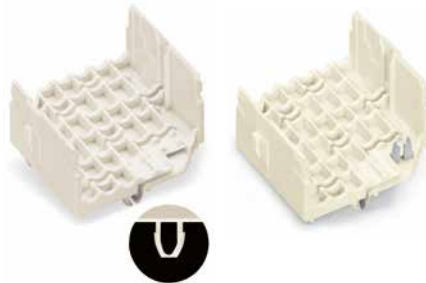
## Conductor Support with Insulation Displacement Connection (IDC)

### 267 Series

| Technical Data                  |                      |
|---------------------------------|----------------------|
| 1.5 ... 2.5 mm <sup>2</sup> "s" | 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 6 A              | 600 V / 6 A          |

| Technical Data                  |                      |
|---------------------------------|----------------------|
| 1.5 ... 2.5 mm <sup>2</sup> "s" | 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 6 A              | 600 V / 6 A          |

| Technical Data             |              |
|----------------------------|--------------|
| 500 V / 4 kV / 16 A        | 600 V / 15 A |
| □ 11 ... 12 mm / 0.45 inch |              |



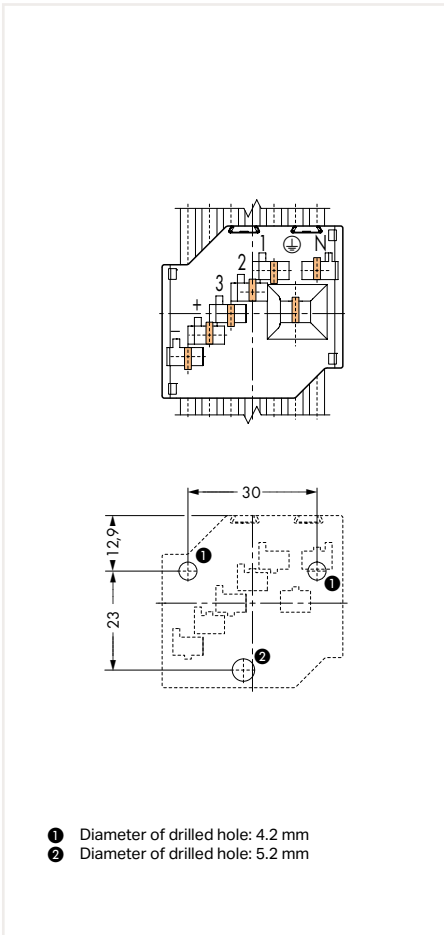
| Conductor support cover; with dovetail guide and IDC contacts; with molded pole marking; white |                     |          |            |
|--|---------------------|----------|------------|
| Pole No.   | Marking             | Item No. | Pack. Unit |
| 5  | N, ⊕, 1, 2, 3       | 267-435  | 50         |
| 7  | N, ⊕, 1, 2, 3, +, - | 267-437  | 50         |

| Conductor support base; with snap-in mounting feet; white |          |            |
|---|----------|------------|
| Description   | Item No. | Pack. Unit |
| Without snap-in PE contact                                | 267-412  | 250        |
| With snap-in PE contact                                   | 267-422  | 250        |

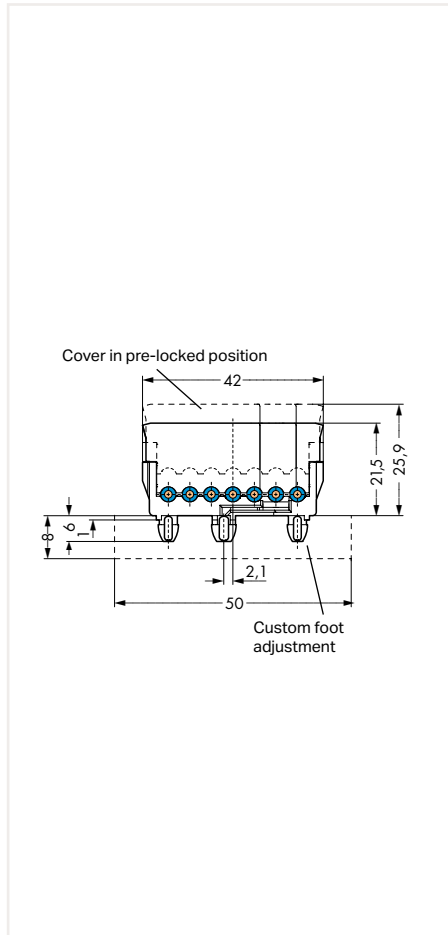
| Snap-on type conductor support; 4-pole |          |            |
|--|----------|------------|
| Color                                  | Item No. | Pack. Unit |
| ○ 0.75 ... 1.5 mm <sup>2</sup>         |          |            |
| ○ White cover                          | 267-324  | 500        |
| ○ 1.5 ... 2.5 mm <sup>2</sup>          |          |            |
| ○ Gray cover                           | 267-328  | 500        |

5

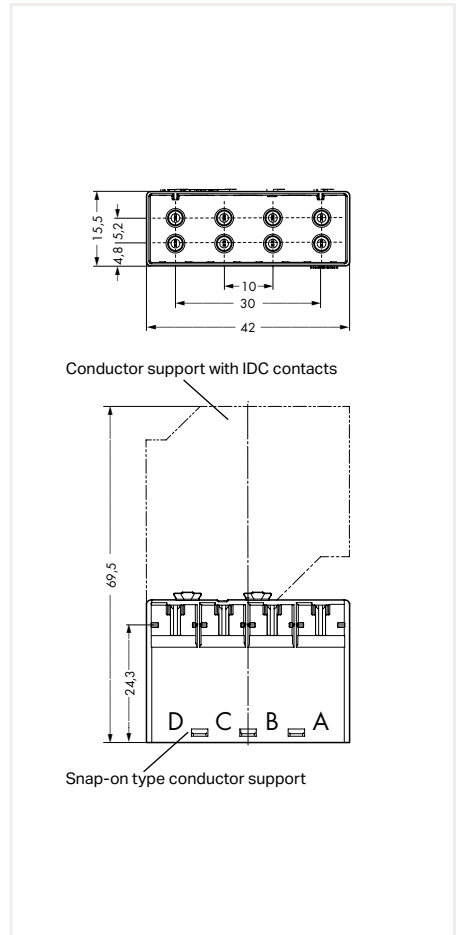
Dimensions in mm



Dimensions in mm



Dimensions in mm



# Pluggable Connection System with Phase Selection for Fluorescent Lighting Fixtures Socket for Conductor Support with Insulation Displacement Connection (IDC) 267 Series

| Technical Data                |                      |
|-------------------------------|----------------------|
| 0.5 ... 1 mm <sup>2</sup> "s" | 22 ... 18 AWG "sol." |
| 500 V / 4 kV / 6 A            | 600 V / 6 A          |
| 8 mm / 0.31 inch              |                      |



| Technical Data                |                      |
|-------------------------------|----------------------|
| 0.5 ... 1 mm <sup>2</sup> "s" | 22 ... 18 AWG "sol." |
| 500 V / 4 kV / 6 A            | 600 V / 6 A          |
| 8 mm / 0.31 inch              |                      |



| Technical Data                |                      |
|-------------------------------|----------------------|
| 0.5 ... 1 mm <sup>2</sup> "s" | 22 ... 18 AWG "sol." |
| 500 V / 4 kV / 6 A            | 600 V / 6 A          |
| 8 mm / 0.31 inch              |                      |



Socket; with ground conductor connection and strain relief plate; white/gray

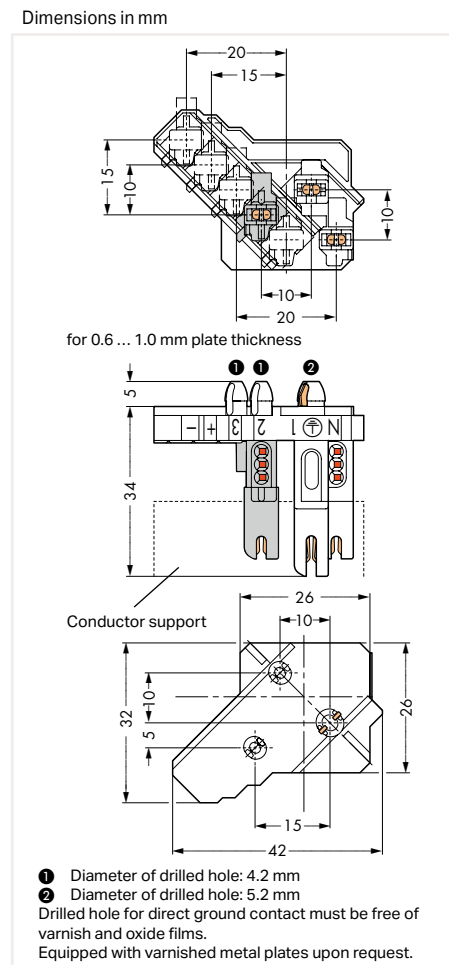
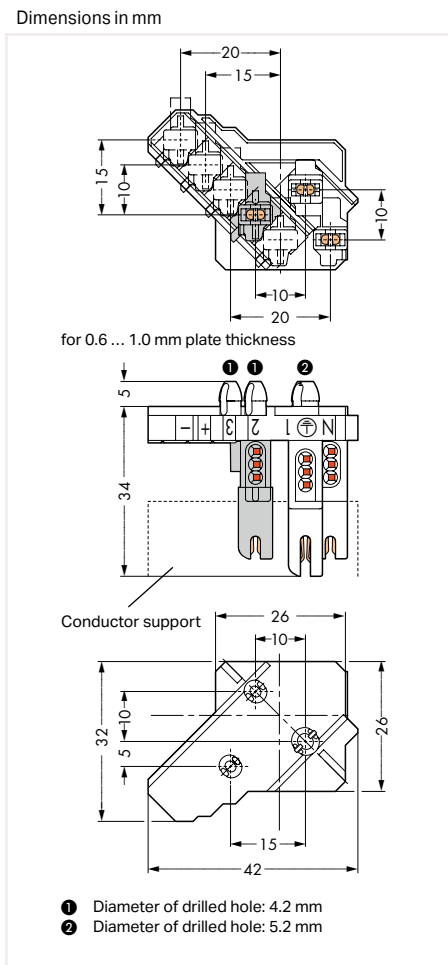
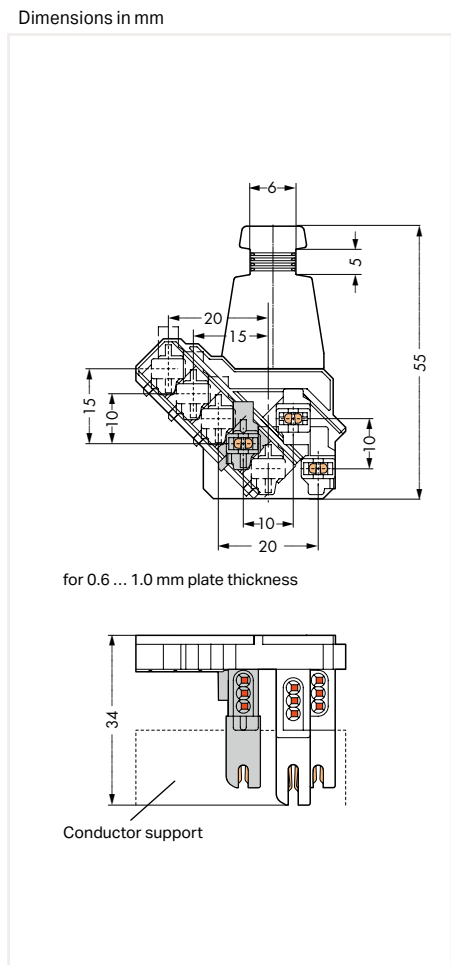
| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 3        | 267-223  | 500        |
| 4        | 267-224  | 500        |
| 5        | 267-225  | 500        |
| 6        | 267-226  | 500        |
| 7        | 267-227  | 500        |

Socket; with snap-in mounting feet and ground conductor connection; white/gray; with molded pole marking; gray socket for phase selection to 1, 2, 3, +, - (not possible with 7-pole socket)

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 3        | 267-163  | 500        |
| 4        | 267-164  | 500        |
| 5        | 267-165  | 500        |
| 6        | 267-166  | 500        |
| 7        | 267-167  | 500        |

Socket; with snap-in mounting feet and direct PE contact; white/gray; with molded pole marking; gray socket for phase selection to 1, 2, 3, +, - (not possible with 7-pole socket)

| Pole No. | Item No. | Pack. Unit |
|----------|----------|------------|
| 3        | 267-173  | 500        |
| 4        | 267-174  | 500        |
| 5        | 267-175  | 500        |
| 6        | 267-176  | 500        |
| 7        | 267-177  | 500        |



5

# Pluggable Connection System with Phase Selection for Fluorescent Lighting Fixtures Socket/Socket Module for Conductor Support with Insulation Displacement Connection (IDC) 267 Series

| Technical Data                |                      |
|-------------------------------|----------------------|
| 0.5 ... 1 mm <sup>2</sup> "s" | 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 16 A           | 600 V / 6 A          |
| 8 mm / 0.31 inch              |                      |

| Technical Data                    |                      |
|-----------------------------------|----------------------|
| 3 x 0.5 ... 1 mm <sup>2</sup> "s" | 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 16 A               | 600 V / 6 A          |
| 8 mm / 0.31 inch                  |                      |

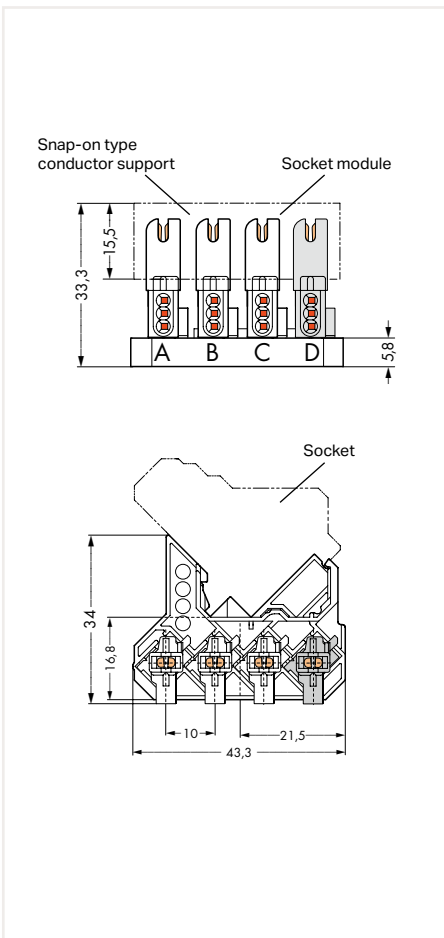


| Snap-on type socket |          |            |
|---------------------|----------|------------|
| Pole No.            | Item No. | Pack. Unit |
| 2                   | 267-232  | 500        |
| 3                   | 267-233  | 500        |
| 4                   | 267-234  | 500        |

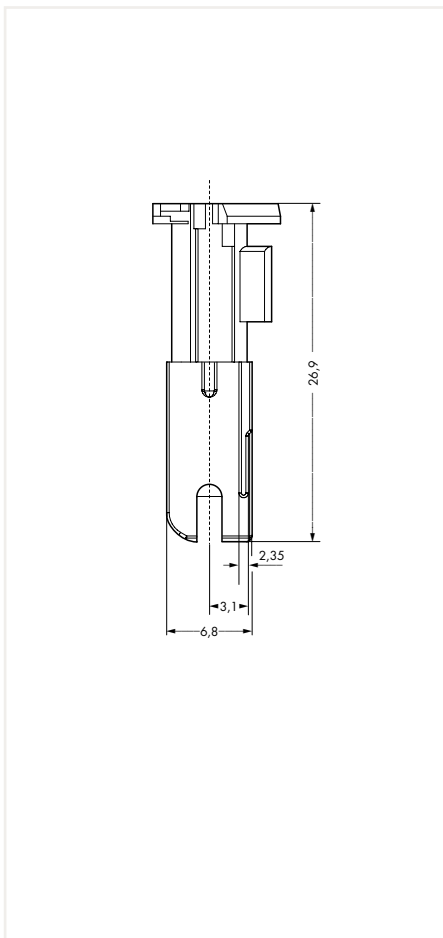
| Socket module; 1-pole |          |            |
|-----------------------|----------|------------|
| Color                 | Item No. | Pack. Unit |
| ● black               | 267-109  | 500        |
| ● gray                | 267-101  | 500        |
| ● red                 | 267-120  | 500        |
| ● yellow              | 267-110  | 500        |
| ● violet              | 267-119  | 500        |

5

Dimensions in mm

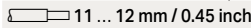


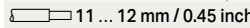
Dimensions in mm

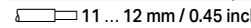


# Connectors for In-Line Mounting of Fluorescent Lighting Fixtures

## 267 Series

| Technical Data   |                      |
|--|----------------------|
| 1.5 ... 2.5 mm <sup>2</sup> "s"  | 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 16 A  | 600 V / 15 A         |
|  11 ... 12 mm / 0.45 inch |                      |

| Technical Data   |                      |
|--|----------------------|
| 1.5 ... 2.5 mm <sup>2</sup> "s"  | 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 16 A  | 600 V / 15 A         |
|  11 ... 12 mm / 0.45 inch |                      |

| Technical Data   |                      |
|--|----------------------|
| 1.5 ... 2.5 mm <sup>2</sup> "s"  | 16 ... 14 AWG "sol." |
| 0.75 ... 1.5 mm <sup>2</sup> "s"   | 18 ... 16 AWG "sol." |
| 500 V / 4 kV / 16 A  | 600 V / 15 A         |
|  11 ... 12 mm / 0.45 inch |                      |



| Socket; without PE contact tab; white |                     |          |            |
|---------------------------------------|---------------------|----------|------------|
| Pole No.                              | Marking             | Item No. | Pack. Unit |
| 7                                     | N, ⊕, 1, 2, 3, +, - | 267-501  | 50         |
| 5                                     | N, ⊕, 1, 2, 3       | 267-502  | 50         |

| Plug; with connection for PE contact tab; white |                     |          |            |
|---|---------------------|----------|------------|
| Pole No.  | Marking             | Item No. | Pack. Unit |
| 7   | N, ⊕, 1, 2, 3, +, - | 267-510  | 50         |
| 5   | N, ⊕, 1, 2, 3       | 267-519  | 50         |

| Plug; with connection for PE contact tab; white |                     |          |            |
|---|---------------------|----------|------------|
| Pole No.  | Marking             | Item No. | Pack. Unit |
| 7   | N, ⊕, 1, 2, 3, +, - | 267-521  | 50         |

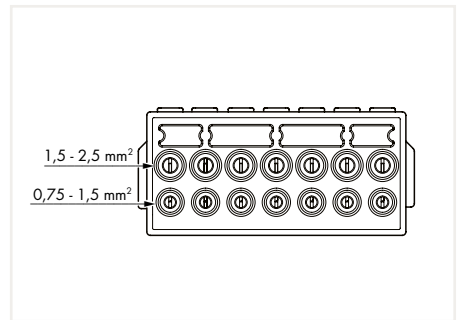
| Socket; without PE contact tab; gray |            |          |            |
|--------------------------------------|------------|----------|------------|
| Pole No.                             | Marking    | Item No. | Pack. Unit |
| 4                                    | A, B, C, D | 267-506  | 50         |

| Plug; with connection for PE contact tab; enhanced locking strength; white |                     |          |            |
|--|---------------------|----------|------------|
| Pole No.   | Marking             | Item No. | Pack. Unit |
| 7  | N, ⊕, 1, 2, 3, +, - | 267-516  | 50         |

| Socket; without PE contact tab; yellow |            |          |            |
|--|------------|----------|------------|
| Pole No.                               | Marking    | Item No. | Pack. Unit |
| 4                                      | A, B, C, D | 267-507  | 50         |

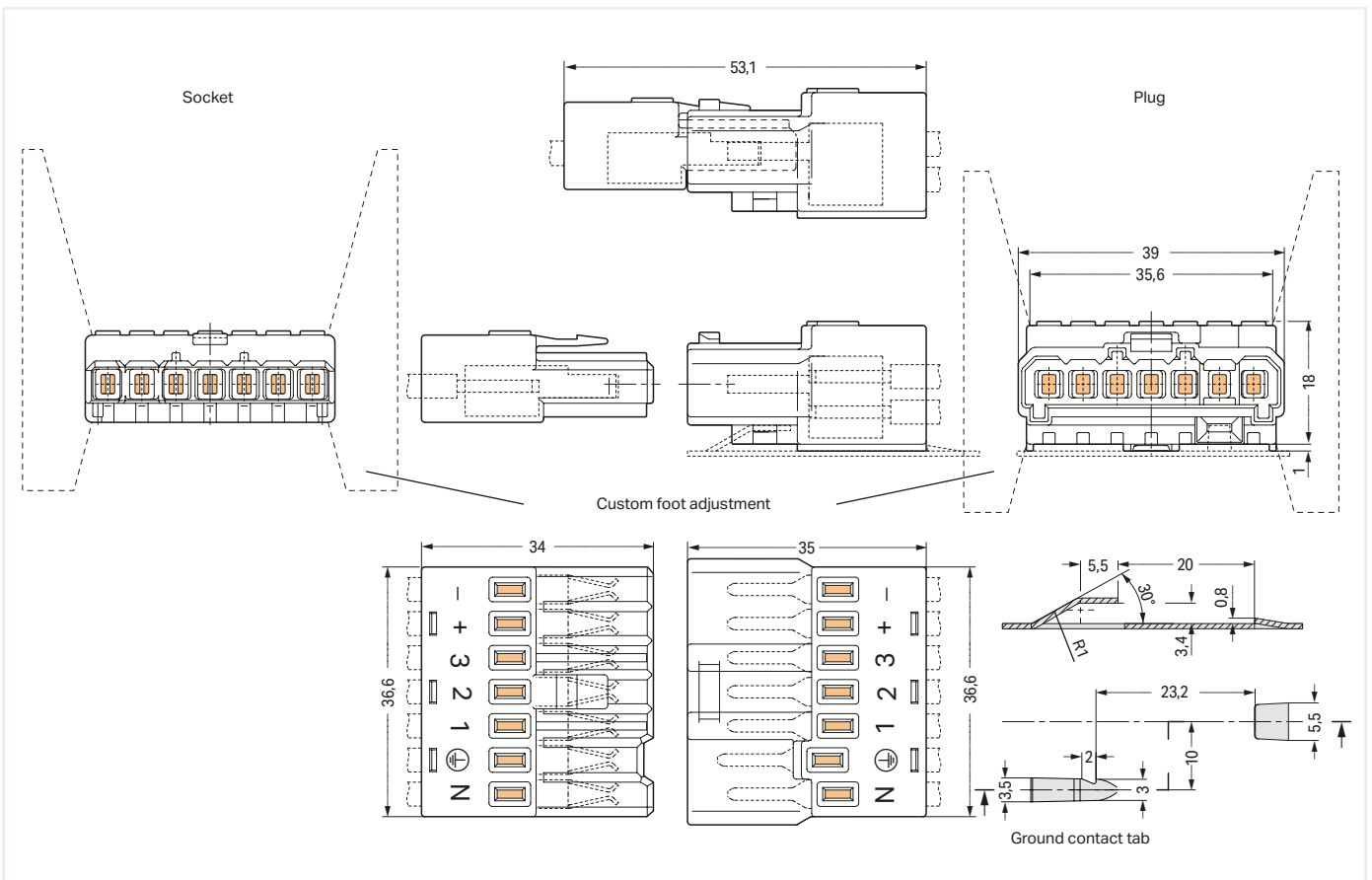
| Plug; with connection for PE contact tab; gray |            |          |            |
|--|------------|----------|------------|
| Pole No.                                       | Marking    | Item No. | Pack. Unit |
| 4  | A, B, C, D | 267-518  | 50         |

| Plug; with connection for PE contact tab; yellow |            |          |            |
|--|------------|----------|------------|
| Pole No.   | Marking    | Item No. | Pack. Unit |
| 4  | A, B, C, D | 267-520  | 50         |



5

Dimensions in mm





# Connectors for In-Line Mounting of Fluorescent Lighting Fixtures

## 3-pole 267 Series

| Technical Data                  |                      |
|---------------------------------|----------------------|
| 1.5 ... 2.5 mm <sup>2</sup> "s" | 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 16 A             | 600 V / 15 A         |
| □ 11 ... 12 mm / 0.45 inch      |                      |

| Technical Data                  |                      |
|---------------------------------|----------------------|
| 1.5 ... 2.5 mm <sup>2</sup> "s" | 16 ... 14 AWG "sol." |
| 500 V / 4 kV / 16 A             | 600 V / 15 A         |
| □ 11 ... 12 mm / 0.45 inch      |                      |



Similar to picture

Socket; without connection for PE contact tab; white

| Pole No. | Marking | Item No. | Pack. Unit |
|----------|---------|----------|------------|
| 3        | N, ⊕, L | 267-552  | 50         |

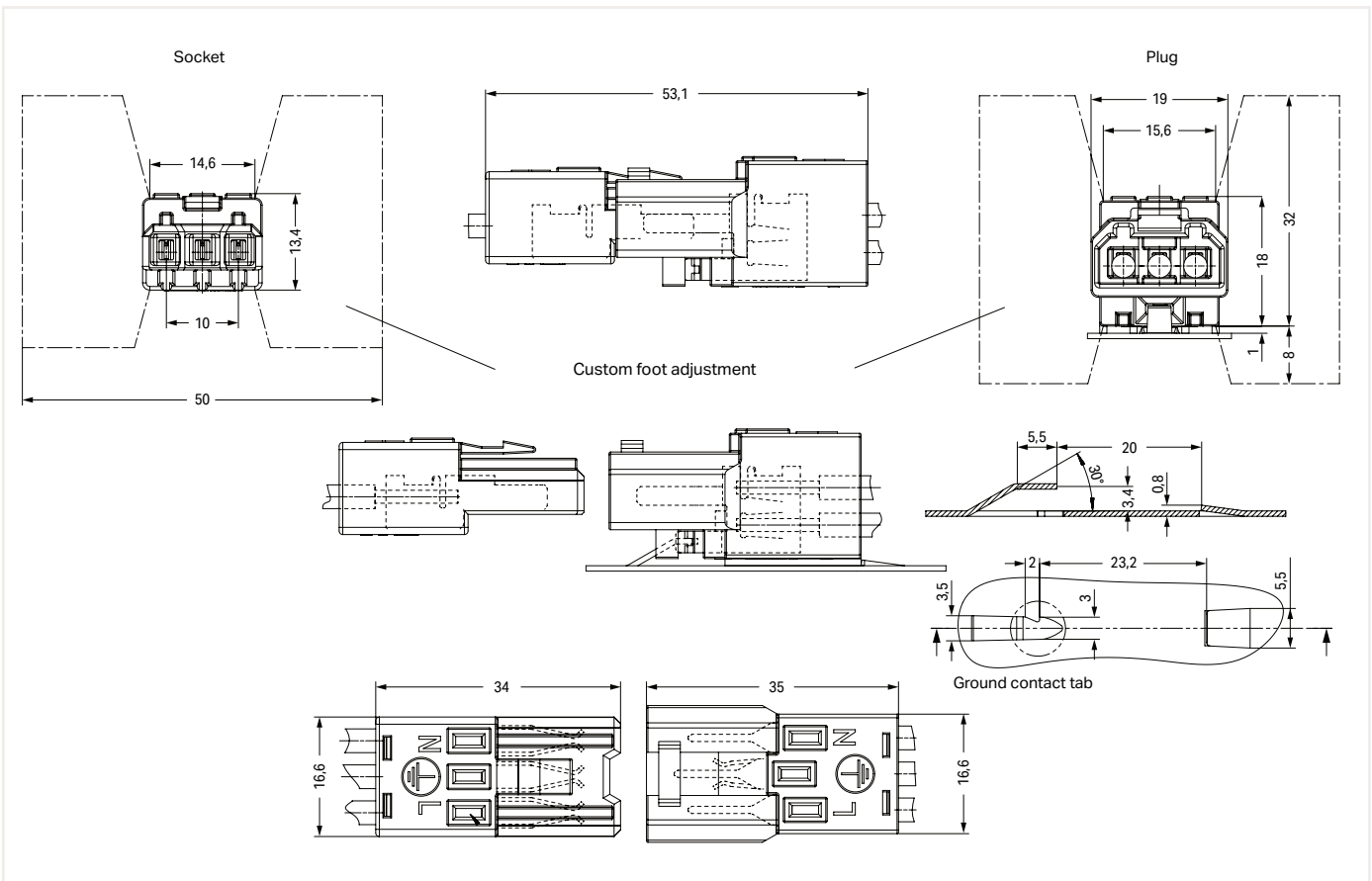
Similar to picture

Plug; with connection for PE contact tab; white

| Pole No. | Marking | Item No. | Pack. Unit |
|----------|---------|----------|------------|
| 3        | L, ⊕, N | 267-563  | 50         |

5

Dimensions in mm



# Luminaire Disconnect Connectors 873 Series

| Technical Data             |                      |
|----------------------------|----------------------|
| 2-conductor plug ①         | 1-conductor socket ② |
| 18 ... 12 AWG "s"          | 18 AWG "s"           |
| 16 ... 12 AWG "st"         | 600 V, 6 A           |
| 11 ... 13 mm / 0.47 inch ① |                      |
| 9 ... 11 mm / 0.39 inch ②  |                      |

| Technical Data             |                      |
|----------------------------|----------------------|
| 2-conductor plug ①         | 1-conductor socket ② |
| 18 ... 12 AWG "s"          | 18 AWG "s"           |
| 16 ... 12 AWG "st"         | 600 V, 6 A           |
| 11 ... 13 mm / 0.47 inch ① |                      |
| 9 ... 11 mm / 0.39 inch ②  |                      |

| Technical Data             |                      |
|----------------------------|----------------------|
| 2-conductor plug ①         | 1-conductor socket ② |
| 18 ... 12 AWG "s"          | 18 AWG "s"           |
| 16 ... 12 AWG "st"         | 600 V, 6 A           |
| 11 ... 13 mm / 0.47 inch ① |                      |
| 9 ... 11 mm / 0.39 inch ②  |                      |



| Luminaire disconnect connector |          |            |
|--------------------------------|----------|------------|
| Pole No.                       | Item No. | Pack. Unit |
| 2                              | 873-902  | 40         |

| Luminaire disconnect connector |          |            |
|--------------------------------|----------|------------|
| Pole No.                       | Item No. | Pack. Unit |
| 3                              | 873-903  | 20         |

| Luminaire disconnect connector; preceding PE contact; center position |          |            |
|---|----------|------------|
| Pole No.  | Item No. | Pack. Unit |
| 3   | 873-953  | 500        |

|  |  |
|--|--|
|  |  |
| <p>✓  18-12 AWG CU, SOL, UL/CSA<br/>0,75...4 mm<sup>2</sup></p> <p>✓  16-12 AWG (≤ 19 str.) CU, UL<br/>14-12 AWG (≤ 19 str.) CU, CSA<br/>One-time use only – Do not reuse<br/>N'utiliser qu'une seule fois</p> | <p>✓  18 AWG CU, SOL, UL/CSA<br/>0,75 mm<sup>2</sup></p> <p><del></del></p> <p><del></del></p> |
| 0.45 inch / 11 ... 13 mm   | 0.35 inch / 9 ... 11 mm  |

**Correct method of solid wire removal**  
Hold wire to be removed in one hand, the connector in the other – twist slightly while pulling the connector.

**Déconnexion correcte du conducteur rigide**  
Tenir d'une main le conducteur à déconnecter et de l'autre main le connecteur – Opérer une légère torsion du conducteur tout en tirant sur le connecteur.

Touch-proof connectors are required for ballast supply cables in new fluorescent lights in the USA and Canada. When exchanging a ballast:

1. The touch-proof plug-in connection is disconnected first.
2. The ballast is replaced.
3. Network connection is restored by plugging the connection. Reconnection streamlines ballast replacement while enhancing safety by safeguarding the installer from electric shock. The 873 Series Luminaire Disconnect Connectors are approved according to UL 2459 and CSA 22.2 for this type of application.

873 Series approvals per EN 60998 and EN 61984:

|          |   |
|----------|---|
| EN 60998 | 0.75 mm <sup>2</sup> (solid), 6 A for socket      |
|          | 1.5 ... 4 mm <sup>2</sup> (solid), 32 A for plug  |
|          | 400 V / 4 kV / 2                                  |
| EN 61984 | 0.75 mm <sup>2</sup> (solid), 6 A for socket      |
|          | 0.75 ... 4 mm <sup>2</sup> (solid), 32 A for plug |
|          | 400 V / 4 kV / 2                                  |




① 2-conductor plug  
② 1-conductor socket

5



## WAGO Lighting Terminal Blocks and Connectors for Linect®

## WAGO Lighting Terminal Blocks and Connectors for Linect®

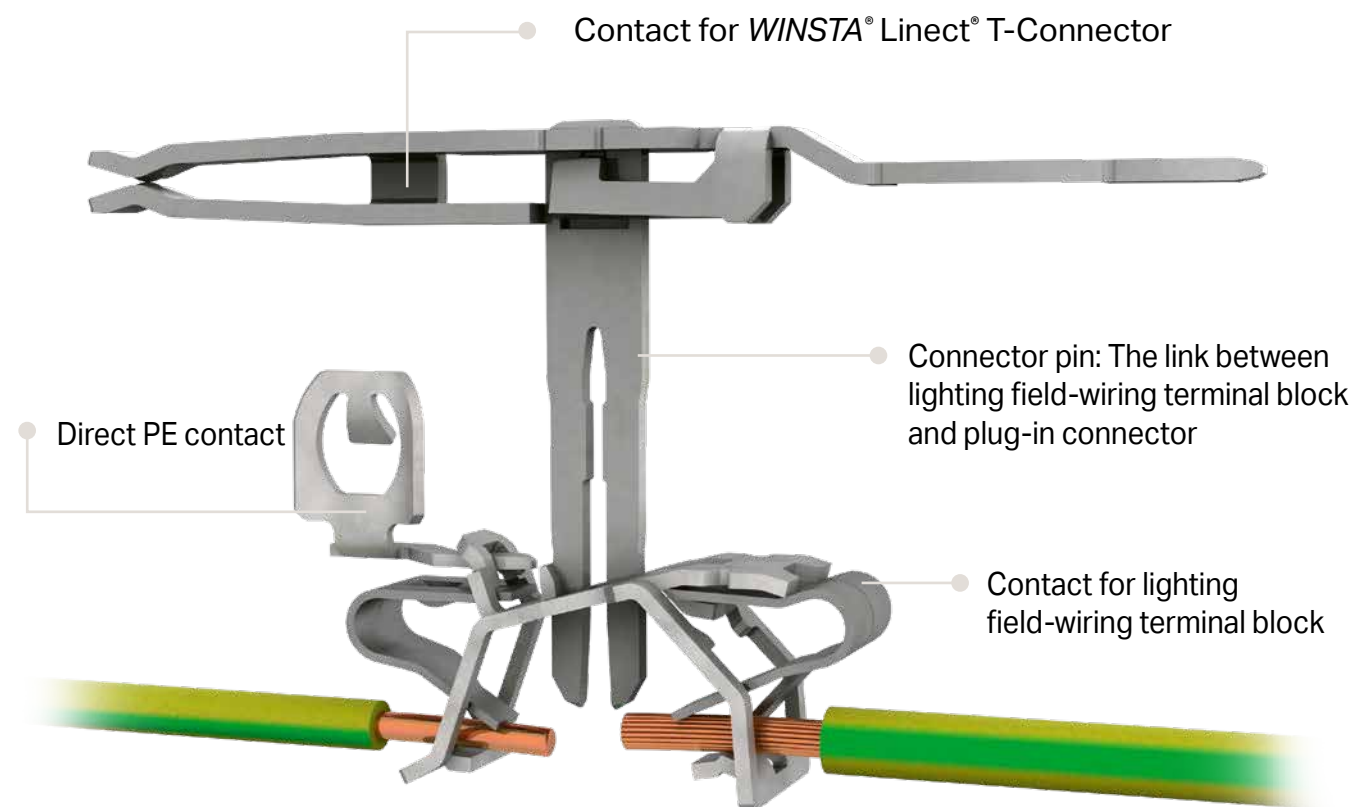
|   |  | Series | Page |
|---|--|--------|------|
|  | Lighting Terminal Blocks for Linect®   | 294    | 184  |
|  | Connectors for Linect®<br>T-Connectors for Linect®                             | 770    | 192  |
|  | Connection Box; for 294 Series Lighting Terminal Blocks (2.5 mm <sup>2</sup> ) | 899    | 196  |

## For Universal Lighting Connections

### Linect® ▶ 294 Series

Lights offered under the Linect® name permit both conventional field-wiring and pluggable connections. Linect®-branded interfaces can be used by any lighting manufacturer worldwide. This enables lights carrying the Linect® logo to be connected to any Linect®-marked connectors – regardless of manufacturer!

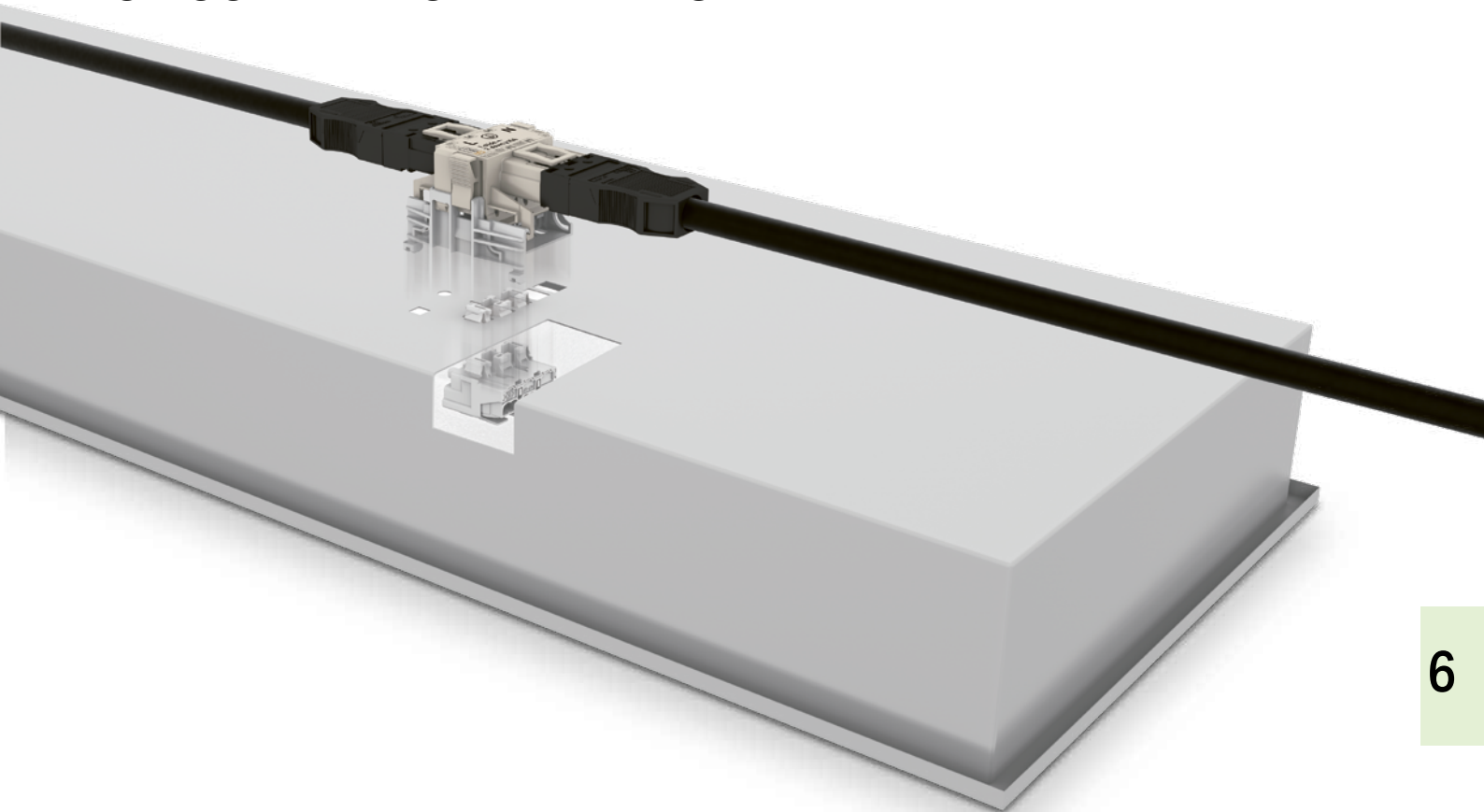
### Contact Technology with Linect® Interface:



PUSH WIRE® for internal lighting wiring with solid conductors

Push-in CAGE CLAMP® for standard lighting wiring with all conductor types

# PLUGGABLE ELECTRICAL INSTALLATION OR CONVENTIONAL WIRING?



6

## Linect® DOES IT ALL!

### Modern Lights Need Modern, Pluggable Connections

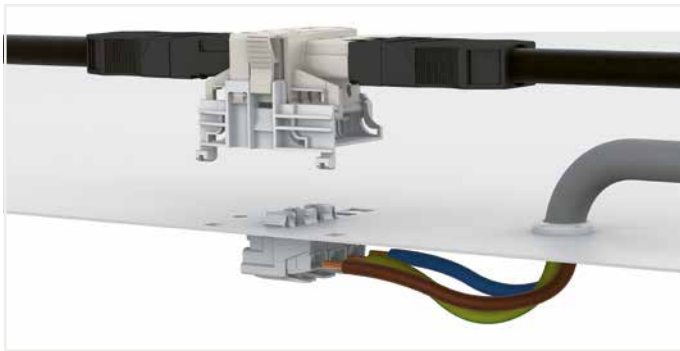
The modern connection system for lighting installation has a name – Linect®. Lights with a Linect® interface provide connections for both conventional field-wiring terminal blocks and pluggable connectors – regardless of the manufacturer. Modern, pluggable electrical installation with Linect® enables fast and easy installation of recessed luminaires with various pluggable connector systems.

As lighting manufacturers, planners and electricians, you will benefit from Linect® – the universal light connection system.



# Lighting Terminal Blocks Description and Installation

Linect® ▶ 294 Series



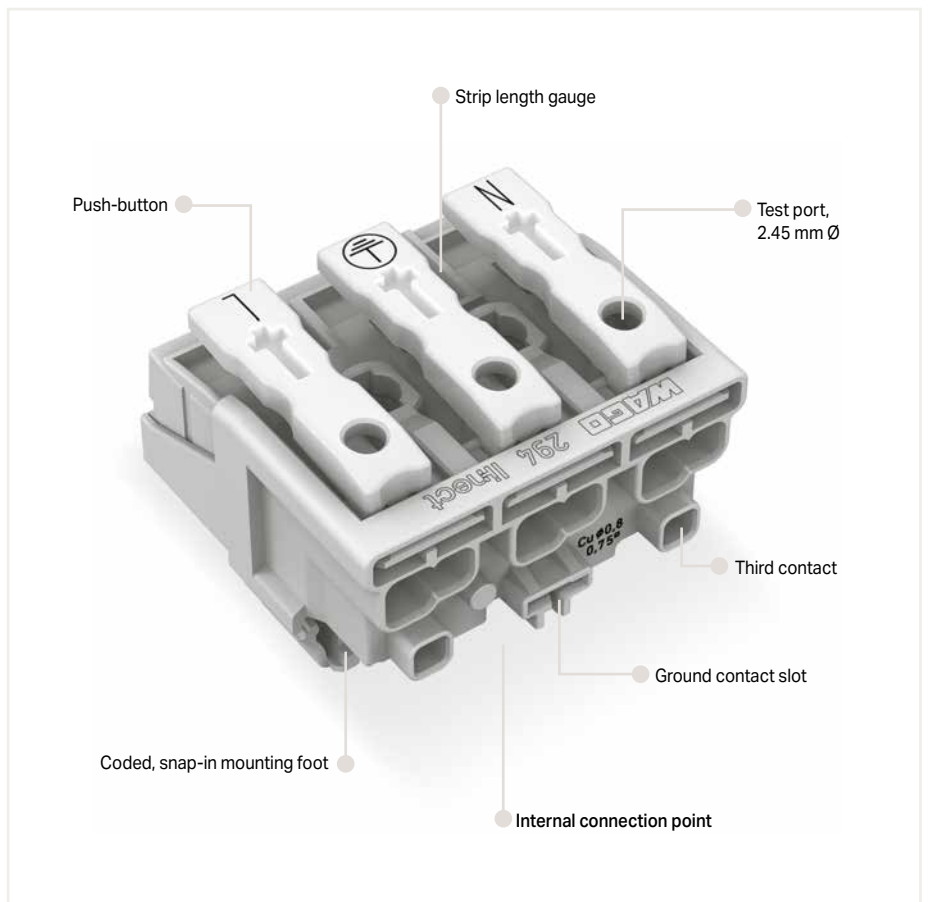
WAGO's 294 Series Lighting Terminal Blocks allow worldwide connection of luminaires via WINSTA® Pluggable Connectors or conventional wiring.

WAGO Linect® Lighting Terminal Blocks are ideal for connecting additional consumers that were not originally planned (e.g., spots). The maximum current between WINSTA® Linect® T-Connector and Lighting Terminal Block is 16 A.

6



Integrated strip length gauge



Position the T-connector within the two square recesses.



Move the T-connector toward the square cutouts until it is locked in position.



Push connector down until fully engaged – done!

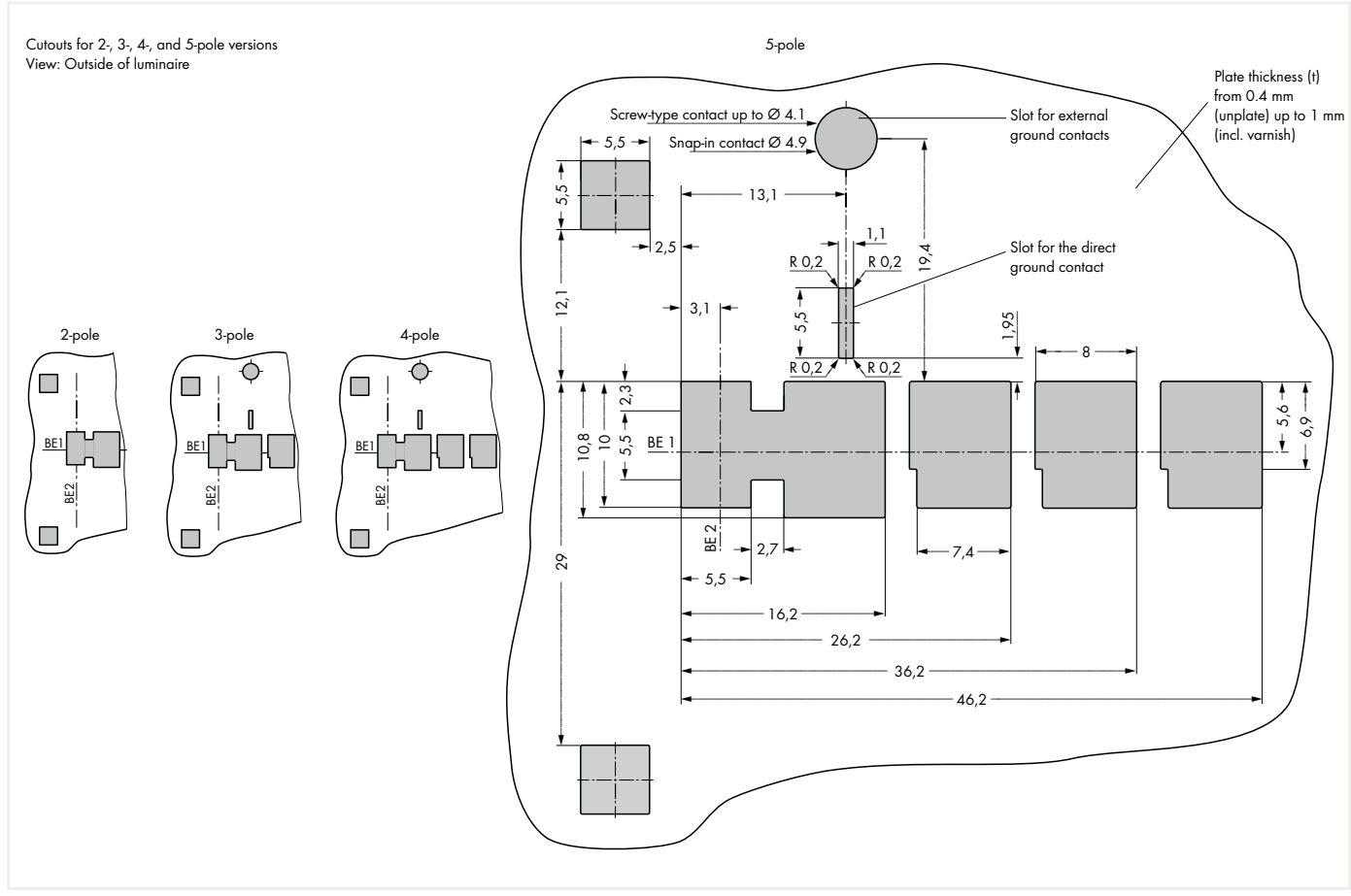
# Description and Installation

## Linect® ▶ 294 Series



| Pole No. | Marking                      | Item No.          | Item No. | Item No. | Item No. | Item No. |
|----------|------------------------------|-------------------|----------|----------|----------|----------|
| 2        | N' L'<br>DA+ DA-             | 294-8022          | -        | -        | -        | -        |
|          |                              | 294-8032          | -        | -        | -        | -        |
| 3        | N ⊕ L (mains)<br>N E L       | 294-8013          | 294-8113 | 294-8413 | 294-8213 | 294-8313 |
|          |                              | 294-8093/3025-000 | -        | -        | -        | -        |
| 4        | 1/L' 2/L ⊕ N<br>1/L' 2/L E N | 294-8024          | 294-8124 | 294-8424 | 294-8224 | 294-8324 |
|          |                              | 294-8094/4025-000 | -        | -        | -        | -        |
| 5        | DA+ DA- L ⊕ N                | 294-8035          | 294-8135 | 294-8435 | 294-8235 | 294-8335 |
|          | L' N' L ⊕ N                  | 294-8025          | 294-8125 | 294-8425 | 294-8225 | 294-8325 |
|          | L3 L2 L1 ⊕ N                 | 294-8015          | 294-8115 | 294-8415 | 294-8215 | 294-8315 |
|          | DA+ DA- L E N                | 294-8095/5025-000 | -        | -        | -        | -        |
|          | L3 L2 L1 E N                 | 294-8095/5026-000 | -        | -        | -        | -        |
|          | L' N' L E N                  | 294-8095/5027-000 | -        | -        | -        | -        |

6

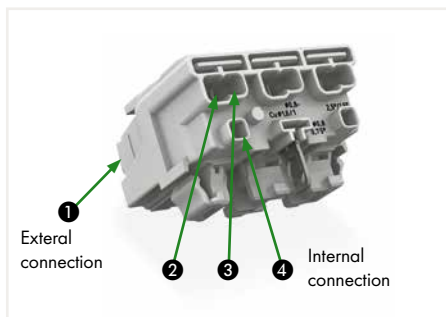


## Lighting Terminal Block

### Linect® ▶ 294 Series



- External connection of solid, stranded and fine-stranded conductors
- Universal conductor termination (AWG, metric)
- Third contact located at the bottom of internal connection end
- Strain relief plate can be retrofitted



| Electrical Data        | Linect® Connector |                  |                |
|------------------------|-------------------|------------------|----------------|
| Ratings per            | IEC/EN 60998-1    | IEC/EN 60998-2-2 | IEC/EN 60664-1 |
| Overvoltage category   | II                | II               | II             |
| Pollution degree       | 2                 | 2                | 2              |
| Rated voltage          | 500 V             | 500 V            | 500 V          |
| Rated surge voltage    | 4 kV              | 4 kV             | 4 kV           |
| Rated current          | 24 A              | 24 A             | 16 A           |
| Temperature marking    | T 85              | T 85             |                |
| Protection type        |                   |                  | IP2XC          |
| Storage temperature    |                   |                  | -35 ... +85 °C |
| Processing temperature |                   |                  | -5 ... +40 °C  |

#### Connection Data for External Connection

|  |                                 |
|--|---------------------------------|
| Connection technology                                    | Push-in CAGE CLAMP®             |
| Strip length   | 8 ... 9 mm / 0.31 ... 0.35 inch |
| Conductor range (conductor termination ①)                |                                 |
| Solid, stranded or fine-stranded conductor               | 2 x 0.5 ... 2.5 mm <sup>2</sup> |
| Solid, stranded or fine-stranded conductor; with ferrule | 2 x 0.5 ... 1.5 mm <sup>2</sup> |
| Solid conductor  | 2 x 18 ... 12 AWG               |
| Fine-stranded and stranded conductor                     | 2 x 18 ... 14 AWG               |

#### Connection Data for Internal Connection

|   |   |
|---|---|
| Connection technology                             | PUSH WIRE®                                  |
| Strip length                                      | 8 ... 9 mm / 0.31 ... 0.35 inch             |
| Conductor range (conductor termination ②)         |   |
| Solid conductor                                   | 0.5 ... 2.5 mm <sup>2</sup> / 18 ... 14 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.5 ... 1.5 mm <sup>2</sup>                 |
| Fine-stranded conductor; with insulated ferrule   | 0.5 ... 1 mm <sup>2</sup>                   |
| Conductor range (conductor termination ③)         |   |
| Solid conductor                                   | 0.5 ... 1.5 mm <sup>2</sup> / 18 ... 16 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.5 ... 1 mm <sup>2</sup>                   |
| Fine-stranded conductor; with insulated ferrule   | 0.5 ... 0.75 mm <sup>2</sup>                |
| Conductor range (conductor termination ④)         |   |
| Solid conductor                                   | 0.5 ... 0.75 mm <sup>2</sup> / 18 AWG       |

#### Material Data

|                             |  |
|-----------------------------|--|
| Material group              | IIIa                                       |
| Insulation material         | Polycarbonate (PC)                         |
| Flammability class per UL94 | V0   |
| Temperature stability       | Relative Temperature Index (RTI) of 120 °C |
| Clamping spring material    | Chrome nickel spring steel (CrNi)          |
| Contact material            | Electrolytic copper (E <sub>cu</sub> )     |
| Contact plating             | Tin-plated                                 |

PUSH-IN CAGE CLAMP®

PUSH WIRE®

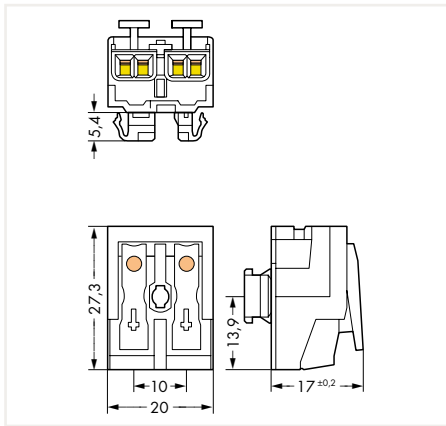
# Lighting Terminal Block ▶ 2-pole Linect® ▶ 294 Series

Without PE contact



| Marking | Item No. | PU   |
|---------|----------|------|
| N' L'   | 294-8022 | 1000 |
| DA+ DA- | 294-8032 | 1000 |

Dimensions in mm



6

# Lighting Terminal Block ▶ 3-pole Linect® ▶ 294 Series

Without PE contact



With direct PE contact



With screw-type PE contact

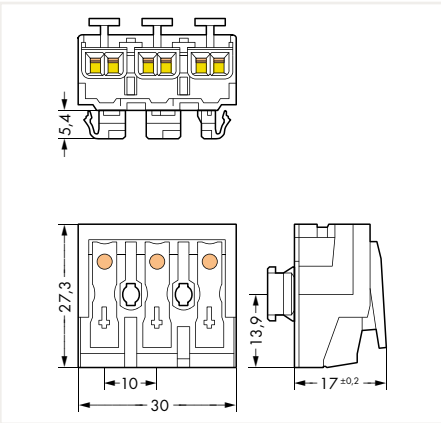


| Marking       | Item No.          | PU  |
|---------------|-------------------|-----|
| N ⊕ L (mains) | 294-8013          | 500 |
| N E L         | 294-8093/3025-000 | 500 |

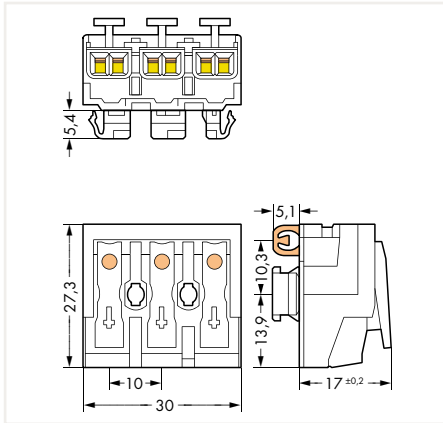
| Marking       | Item No. | PU  |
|---------------|----------|-----|
| N ⊕ L (mains) | 294-8113 | 500 |

| Marking       | Item No. | PU  |
|---------------|----------|-----|
| N ⊕ L (mains) | 294-8413 | 500 |

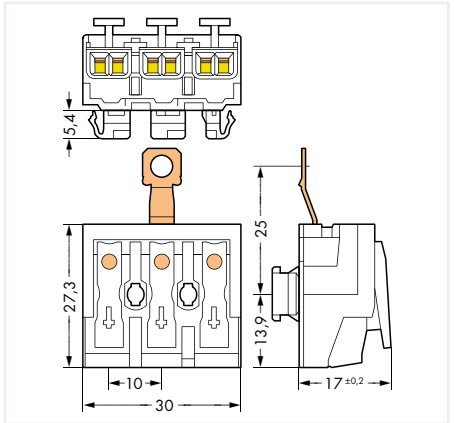
Dimensions in mm



Dimensions in mm



Dimensions in mm



6

PUSH-IN CAGE CLAMP®

PUSH WIRE®

# Lighting Terminal Block ▶ 3-pole Linect® ▶ 294 Series

With snap-in PE contact



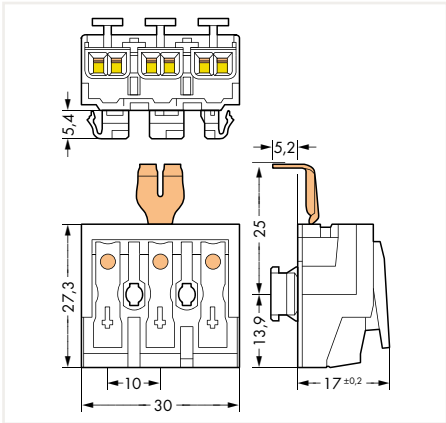
With angled snap-in PE contact



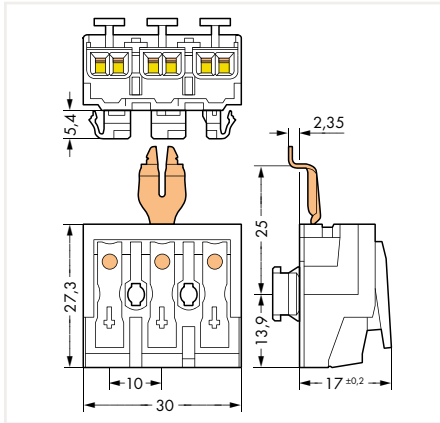
| Marking       | Item No. | PU  |
|---------------|----------|-----|
| N ⊕ L (mains) | 294-8213 | 500 |

| Marking       | Item No. | PU  |
|---------------|----------|-----|
| N ⊕ L (mains) | 294-8313 | 500 |

Dimensions in mm



Dimensions in mm



6



# Lighting Terminal Block ▶ 4-pole Linect® ▶ 294 Series

Without PE contact



With direct PE contact



With screw-type PE contact

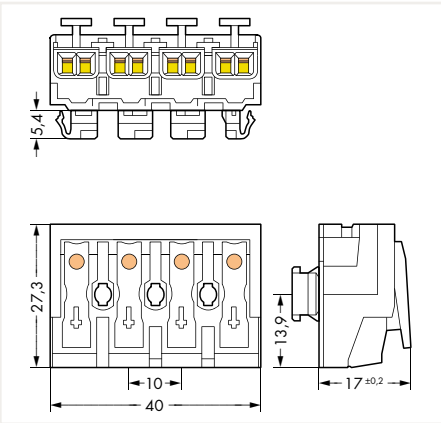


| Marking       | Item No.          | PU  |
|---------------|-------------------|-----|
| 1/L' 2/L' ⊕ N | 294-8024          | 500 |
| 1/L' 2/L' E N | 294-8094/4025-000 | 500 |

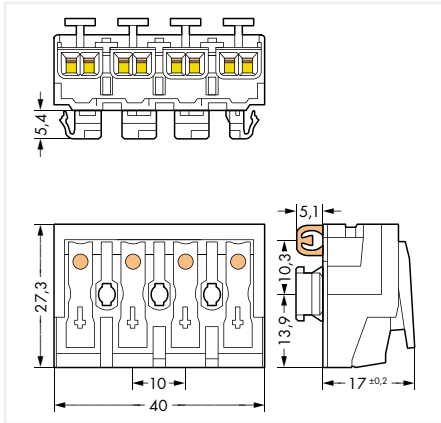
| Marking       | Item No. | PU  |
|---------------|----------|-----|
| 1/L' 2/L' ⊕ N | 294-8124 | 500 |

| Marking       | Item No. | PU  |
|---------------|----------|-----|
| 1/L' 2/L' ⊕ N | 294-8424 | 500 |

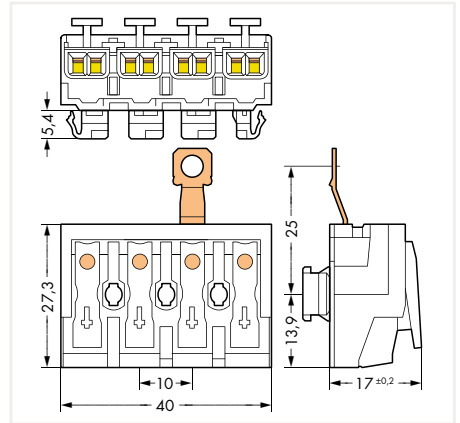
Dimensions in mm



Dimensions in mm



Dimensions in mm



6

PUSH-IN CAGE CLAMP®

PUSH WIRE®

# Lighting Terminal Block ▶ 4-pole Linect® ▶ 294 Series

With snap-in PE contact

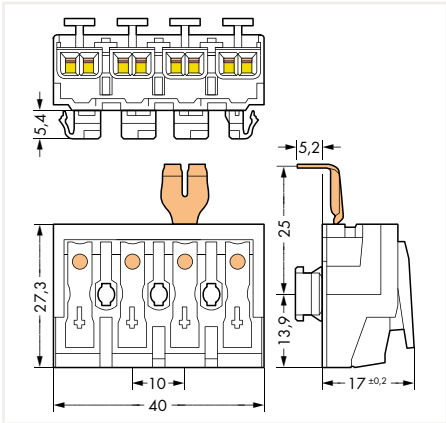
With angled snap-in PE contact



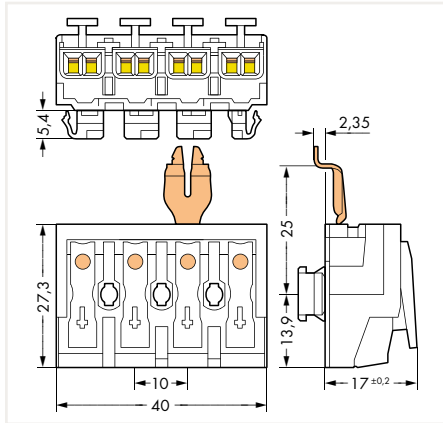
| Marking       | Item No. | PU  |
|---------------|----------|-----|
| 1/L' 2/L' ⊕ N | 294-8224 | 500 |

| Marking       | Item No. | PU  |
|---------------|----------|-----|
| 1/L' 2/L' ⊕ N | 294-8324 | 500 |

Dimensions in mm



Dimensions in mm



6

# Lighting Terminal Block ▶ 5-pole Linect® ▶ 294 Series

Without PE contact



With direct PE contact



With screw-type PE contact

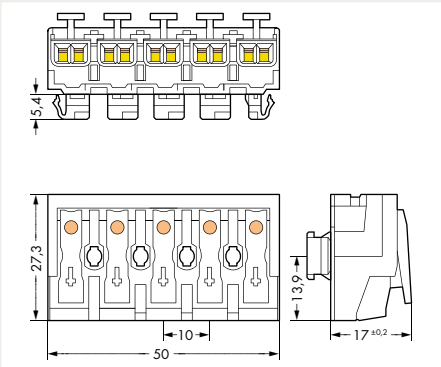


| Marking       | Item No.          | PU  |
|---------------|-------------------|-----|
| DA+ DA- L ⊕ N | 294-8035          | 250 |
| L' N' L ⊕ N   | 294-8025          | 250 |
| L3 L2 L1 ⊕ N  | 294-8015          | 250 |
| DA+ DA- L E N | 294-8095/5025-000 | 250 |
| L3 L2 L1 E N  | 294-8095/5026-000 | 250 |
| L' N' L E N   | 294-8095/5027-000 | 250 |

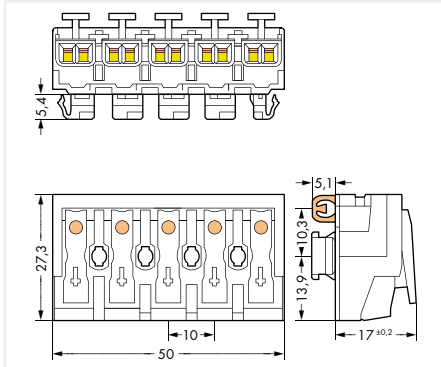
| Marking       | Item No. | PU  |
|---------------|----------|-----|
| DA+ DA- L ⊕ N | 294-8135 | 250 |
| L' N' L ⊕ N   | 294-8125 | 250 |
| L3 L2 L1 ⊕ N  | 294-8115 | 250 |

| Marking       | Item No. | PU  |
|---------------|----------|-----|
| DA+ DA- L ⊕ N | 294-8435 | 250 |
| L' N' L ⊕ N   | 294-8425 | 250 |
| L3 L2 L1 ⊕ N  | 294-8415 | 250 |

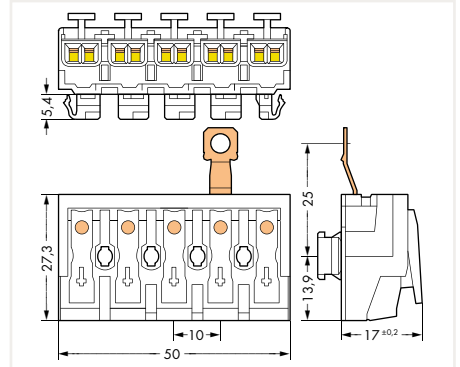
Dimensions in mm



Dimensions in mm



Dimensions in mm



6

PUSH-IN CAGE CLAMP®

PUSH WIRE®

# Lighting Terminal Block ▶ 5-pole Linect® ▶ 294 Series

With snap-in PE contact

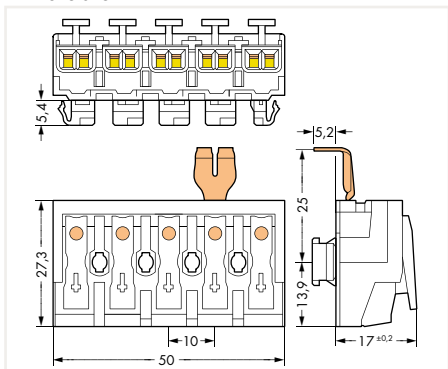
With angled snap-in PE contact



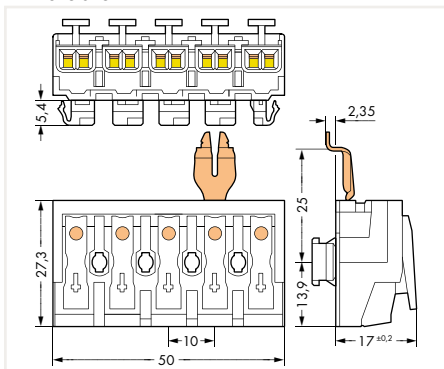
| Marking       | Item No. | PU  |
|---------------|----------|-----|
| DA+ DA- L ⊕ N | 294-8235 | 250 |
| L' N' L ⊕ N   | 294-8225 | 250 |
| L3 L2 L1 ⊕ N  | 294-8215 | 250 |

| Marking       | Item No. | PU  |
|---------------|----------|-----|
| DA+ DA- L ⊕ N | 294-8335 | 250 |
| L' N' L ⊕ N   | 294-8325 | 250 |
| L3 L2 L1 ⊕ N  | 294-8315 | 250 |

Dimensions in mm



Dimensions in mm



6

## Linect® Connector for Conventional Wiring ▶ 3-Pole 770 Series



- Linect® connector for conventional, external wiring
- Push-in CAGE CLAMP® for all conductor types up to 2.5 mm<sup>2</sup>
- Quick and easy replacement of lights for maintenance or retrofits
- Opening the light is not necessary

| Electrical Data      | Push-in CAGE CLAMP®<br>Connection | Linect® Connector               |
|----------------------|-----------------------------------|---------------------------------|
| Ratings per          | IEC/EN 61984                      | IEC/EN 61984                    |
| Overvoltage category | II                                | II                              |
| Pollution degree     | 2                                 | 2                               |
| Rated voltage        | 250 V                             | 250 V                           |
| Rated surge voltage  | 4 kV                              | 4 kV                            |
| Rated current        | 24 A                              | 16 A                            |
| Protection type      | IP2XC                             | IP2XC                           |
| Storage temperature  | -35 ... +85 °C<br>-5 ... +40 °C   | -35 ... +85 °C<br>-5 ... +40 °C |

### Connection Data for External Connection

|  |                                 |
|--|---------------------------------|
| Connection technology                                    | Push-in CAGE CLAMP®             |
| Strip length   | 8 ... 9 mm / 0.31 ... 0.35 inch |
| Conductor range (conductor termination ①)                |                                 |
| Solid, stranded or fine-stranded conductor               | 2 x 0.5 ... 2.5 mm <sup>2</sup> |
| Solid, stranded or fine-stranded conductor; with ferrule | 2 x 0.5 ... 2.5 mm <sup>2</sup> |
| Solid conductor  | 2 x 20 ... 12 AWG               |
| Fine-stranded and stranded conductor                     | 2 x 18 ... 14 AWG               |

### Material Data

|                             |  |
|-----------------------------|--|
| Material group              | IIIa                                       |
| Insulation material         | Polycarbonate (PC)                         |
| Flammability class per UL94 | V0   |
| Temperature stability       | Relative Temperature Index (RTI) of 120 °C |
| Clamping spring material    | Chrome nickel spring steel (CrNi)          |
| Contact material            | Electrolytic copper (E <sub>cu</sub> )     |
| Contact plating             | Tin-plated                                 |

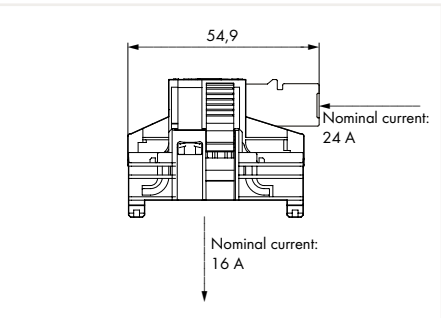
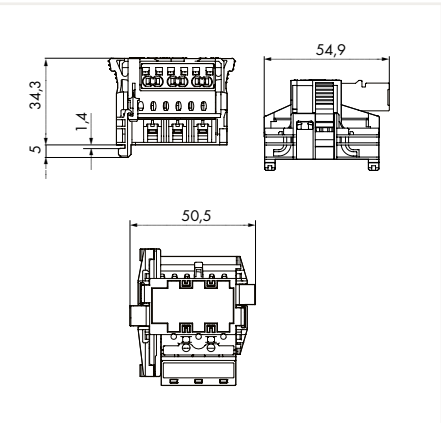
# Linect® Connector for Conventional Wiring ▶ 3-Pole 770 Series

Linect® Connector; 3-pole



| Color   | Item No. | PU |
|---------|----------|----|
| ○ white | 770-6229 | 25 |

Dimensions in mm



| 3-pole  |          |         |
|---------|----------|---------|
| ○ white | A-coding | (L ⊕ N) |

Accessories; item-specific

Strain relief housing; for 1 cable; 4.5 ... 8 mm diameter

|  |       |                 |    |
|--|-------|-----------------|----|
|  | black | 770-503/023-000 | 50 |
|  | white | 770-513/023-000 | 50 |

Strain relief housing; for 2 cables; 8 ... 11.5 mm diameter

|  |       |         |    |
|--|-------|---------|----|
|  | black | 770-503 | 50 |
|  | white | 770-513 | 50 |

Strain relief housing; angled; for 2 cables; 8 ... 11.5 mm diameter

|  |       |                 |    |
|--|-------|-----------------|----|
|  | black | 770-503/032-000 | 50 |
|  | white | 770-513/032-000 | 50 |

Strain relief housing; for 4 mm² cables; for 1 cable; 9 ... 13 mm diameter

|  |       |                 |    |
|--|-------|-----------------|----|
|  | black | 770-503/021-000 | 50 |
|  | white | 770-513/021-000 | 50 |

Strain relief housing; for quick assembly; for 1 cable; 7 ... 11 mm diameter

|  |       |                 |    |
|--|-------|-----------------|----|
|  | black | 770-503/035-000 | 50 |
|  | white | 770-513/035-000 | 50 |



# WINSTA® MIDI

## Linect® T-Connector ▶ 2-, 3- and 4-pole

### 770 Series

| Technical Data    |  |
|-------------------|--|
| 250 V / 4 kV / 3  |  |
| $I_n$ 25 A (16 A) |  |



| Technical Data    |  |
|-------------------|--|
| 250 V / 4 kV / 3  |  |
| $I_n$ 25 A (16 A) |  |



| Technical Data    |  |
|-------------------|--|
| 400 V / 6 kV / 3  |  |
| $I_n$ 25 A (16 A) |  |

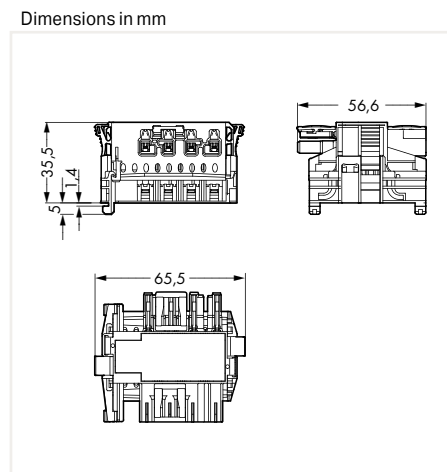
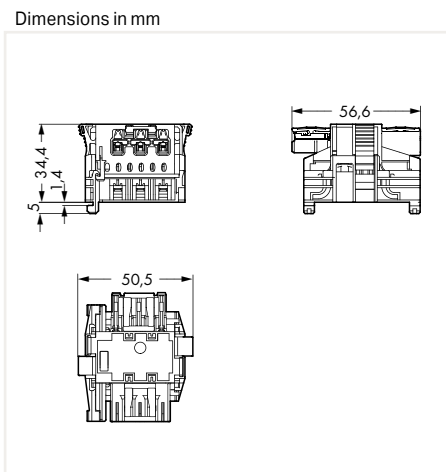
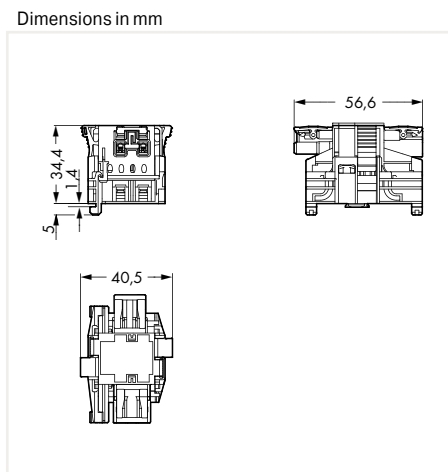


| Linect® T-Connector; 2-pole; socket – plug; white housing; blue cover; for DALI applications |          |    |
|--|----------|----|
| Color  | Item No. | PU |
| ● blue   | 770-7102 | 25 |

| Linect® T-Connector; 3-pole; socket – plug; white housing; white cover |          |    |
|--|----------|----|
| Color  | Item No. | PU |
| ○ white  | 770-6223 | 25 |

| Linect® T-Connector; 4-pole; socket – plug; white housing; white cover |          |    |
|--|----------|----|
| Color  | Item No. | PU |
| ○ white  | 770-6224 | 25 |

| Linect® T-Connector; 2-pole; socket – plug; white housing; dark gray cover; for emergency power |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● dark gray   | 770-7502 | 25 |



| Accessories; item-specific             |         |      |  |
|--|---------|------|--|
| Coding pin; for plug (A- and B-coding) |         |      |  |
| gray                                   | 770-401 | 1000 |  |



| Accessories; item-specific             |         |      |  |
|--|---------|------|--|
| Coding pin; for plug (A- and B-coding) |         |      |  |
| gray                                   | 770-401 | 1000 |  |



6

# WINSTA® MIDI

## Linect® T-Connector ▶ 5-pole

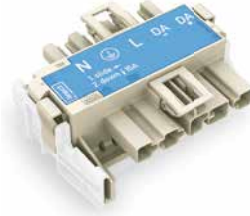
### 770 Series

| Technical Data             |  |
|----------------------------|--|
| 400 V / 6 kV / 3           |  |
| I <sub>N</sub> 25 A (16 A) |  |



| Linect® T-Connector; 5-pole; socket – plug; white housing; white cover |          |    |
|--|----------|----|
| Color  | Item No. | PU |
| ○ white  | 770-6225 | 25 |

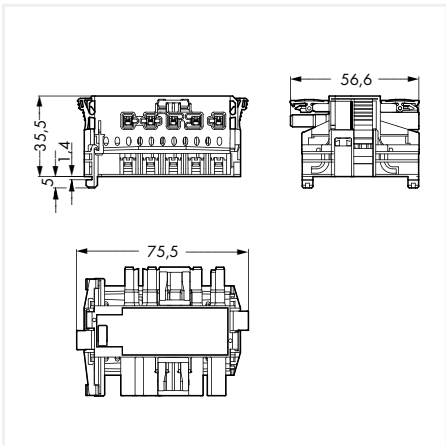
| Technical Data             |  |
|----------------------------|--|
| 400 V / 6 kV / 3           |  |
| I <sub>N</sub> 25 A (16 A) |  |



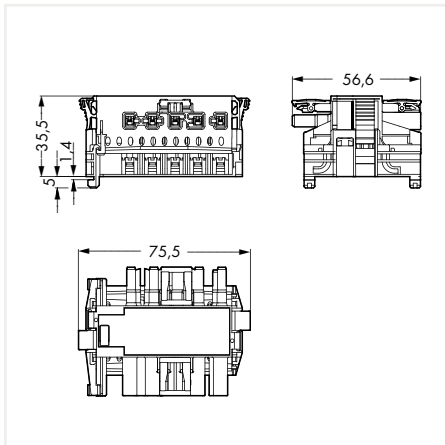
| Linect® T-Connector; 5-pole; socket – plug; white housing; blue cover; for DALI applications |          |    |
|--|----------|----|
| Color  | Item No. | PU |
| ● blue   | 770-7105 | 25 |

| Linect® T-Connector; 5-pole; socket – plug; white housing; dark gray cover; for emergency power |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● dark gray   | 770-7505 | 25 |

Dimensions in mm



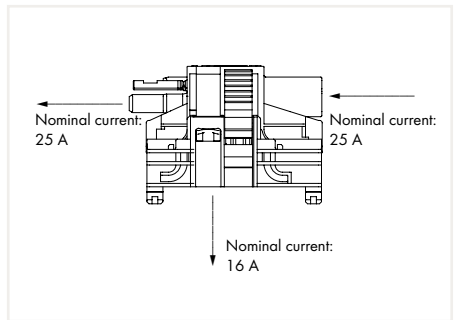
Dimensions in mm



|             |          |                 |
|-------------|----------|-----------------|
| 2-pole      |          |                 |
| ● blue      | I-coding | (DA+ DA-)       |
| ● dark gray | L-coding | (L' N')         |
| 3-pole      |          |                 |
| ○ white     | A-coding | (L ⊕ N)         |
| 4-pole      |          |                 |
| ○ white     | A-coding | (N ⊕ 2/L 1/L')  |
| 5-pole      |          |                 |
| ○ white     | A-coding | (N ⊕ L1 L2 L3)  |
| ● blue      | I-coding | (N ⊕ L DA- DA+) |
| ● dark gray | L-coding | (N ⊕ L N' L')   |

| Accessories                                 |       |         |     |
|---|-------|---------|-----|
| Lockout cap; for socket; separable; 12-pole |       |         |     |
|   | black | 770-201 | 100 |
|   | white | 770-221 | 100 |

| Lockout cap; for plug; separable; 5-pole |        |         |     |
|--|--------|---------|-----|
|  | yellow | 770-360 | 100 |











## **WINSTA® – The Pluggable Connection System**

## WAGO Pluggable Connection System WINSTA®

|   |              | Series | Page |
|---|--------------|--------|------|
|  | WINSTA® MINI | 890    | 204  |
|  | WINSTA® MIDI | 770    | 220  |



# TOMORROW'S BUILDINGS WILL BE BUILT WITH TODAY'S WINSTA® SYSTEM

Perfectly Plugged Electrical Building Installations



# SUCCESS THROUGH EXPERTISE

## Project Planning with WAGO

WAGO offers consulting and project planning services to help devise the best possible solution for your project. Our experienced team of professionals will gladly help you implement your project with our products.

## Installation Examples



In suspended ceilings



WINSTA® MIDI  
0.5 ... 4 mm<sup>2</sup> / 25 A / 400 V



Power distribution



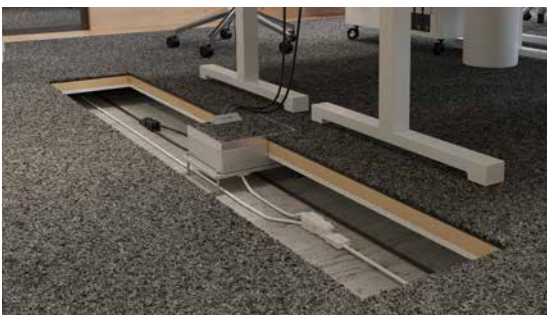
WINSTA® Boxes



WINSTA® MINI  
0.25 ... 1.5 mm<sup>2</sup> / 16 A / 250 V



WINSTA® MIDI  
0.5 ... 4 mm<sup>2</sup> / 25 A / 400 V



In raised floors



WINSTA® MIDI  
0.5 ... 4 mm<sup>2</sup> / 25 A / 400 V



WINSTA® IDC  
2.5 ... 16 mm<sup>2</sup> / 76 A / 400 V

# WINSTA® – The Pluggable Connection System

## WINSTA® MINI

For Applications in Tight Spaces

- Sensors  
(switches, push-buttons, window contacts, pressure switches, temperature sensors, etc.)
- Actuators  
(control valves, magnetic valves, servo motors, blinds/sun protection, etc.)
- Protection class II for halogen lamps and luminaires
- Control signals
- 1.5 mm<sup>2</sup>, 250 V, 16 A
- IP40

2 ... 5 poles  
890 and 891 Series



## WINSTA® MIDI

For Maximum Possibilities

- General building installation, especially for modern functional buildings
- Standard lighting fixtures and safety lights
- Tradeshow and shop installation
- Motor homes
- Lab work stations
- Rolling stock
- Shipbuilding
- 4 mm<sup>2</sup>, 250 / 400 V, 25 A

2 ... 5 poles  
770 and 771 Series



## WINSTA® MAXI

For High-Power Applications

- Power supply via 6 mm<sup>2</sup> cable for extended cable runs
- 32 A power supply in distribution boxes for high energy requirements
- 6 mm<sup>2</sup>, 250 / 400 V, 35 A

5 poles  
831 Series



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## WINSTA® MINI

For Specialty Applications

2 ... 5 poles  
890 and 891 Series



## WINSTA® MIDI

For Specialty Applications

2 ... 5 poles  
770 and 771 Series



## WINSTA® Boxes

Distribution Boxes

899 Series

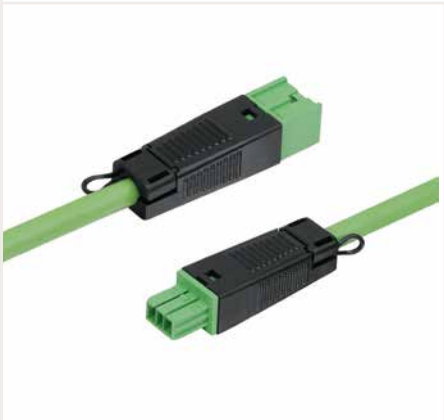


**WINSTA® KNX**

For the Standardized Bus

- KNX/EIB
- Control signals
- Ø 0.8 mm, 50 V, 3 A

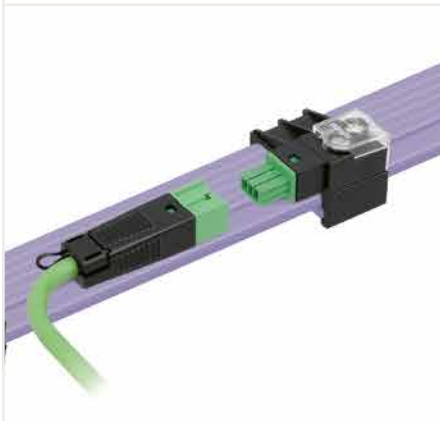
2 poles  
893 and 894 Series

**WINSTA® IDC**

For Maximum Flexibility

- Supply and tap off is possible at any time and at any location along the flat cable. No cutting, no stripping, no dismantling – very user-friendly
- A 120° rotation is all that is required to connect the flat cable
- Space-efficient across the flat cable through longitudinal tap off
- 2.5 / 4 mm<sup>2</sup>, 400 V, 25 A
- 10 mm<sup>2</sup>, 690 V, 57 A
- 16 mm<sup>2</sup>, 690 V, 76 A

2, 3, 5 and 7 poles  
772, 893, 895, 896 and 897 Series

**WINSTA® RD**

For Round Conduits and Ducts

- Outside diameter of 17.5 mm for applications in electrical conduits with an inner diameter > 18 mm
- Prefabricated houses
- Recessed luminaires
- Wall and ceiling cutouts

3 and 4 poles  
774 Series





## Socket and Plug ▶ without strain relief housing

### 2 poles

### WINSTA® MINI ▶ 890 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |
|----------------------|----------------|-----|----|
| Coding               | A, I           |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 250 V          | -   | -  |
| Rated surge voltage  | 4 kV           | -   | -  |
| Rated current        | 16 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 14 A           |     |    |

|                                   |   |
|-----------------------------------|---|
| Clearances and creepage distances | ≥ 5.5 mm to exposed surfaces                                    |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug) |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                           |
| Strip length                                      | 9 mm / 0.35 inch                              |
| Conductor range                                   |   |
| Solid conductor                                   | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG  |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG  |
| Stranded conductor                                | 0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG    |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG  |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup> / 22 ... 20 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 20 AWG  |

| Mechanical Data  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 16 A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                    |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | Ø 3.8 ... 8.2 mm  |
| Protection type  | IP40 (plugged in with strain relief housing)  |

| Material Data            |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

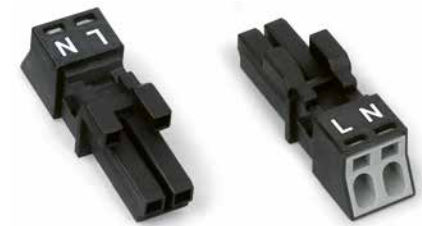
# Socket and Plug

## 2 poles

### WINSTA® MINI ▶ 890 Series

Socket

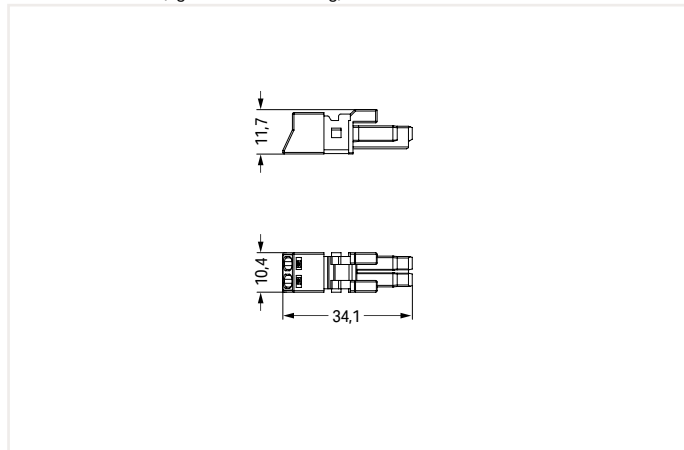
Plug



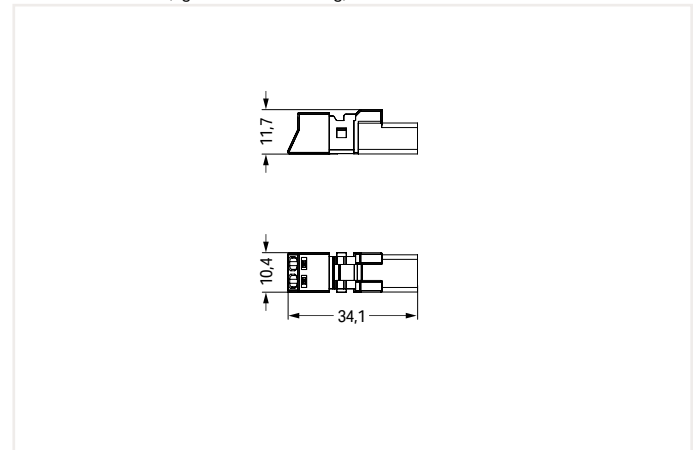
| Color   | Coding | Marking | Item No. | PU |
|---------|--------|---------|----------|----|
| ● black | A      | L N     | 890-202  | 50 |
| ○ white | A      | L N     | 890-222  | 50 |
| ● blue  | I      | + -     | 890-1102 | 50 |

| Color   | Coding | Marking | Item No. | PU |
|---------|--------|---------|----------|----|
| ● black | A      | L N     | 890-212  | 50 |
| ○ white | A      | L N     | 890-232  | 50 |
| ● blue  | I      | + -     | 890-1112 | 50 |

Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



Accessories; for all products on this page



Strain relief housing; 3.8 ... 8.2 mm cable diameter; 32 mm strip length

| Color | Item No. | PU |
|-------|----------|----|
| black | 890-502  | 50 |
| white | 890-512  | 50 |



Locking lever; for flying leads; manually operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 890-101  | 100   50 |
| white | 890-121  | 100   50 |



Locking lever; for flying leads; tool operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 890-111  | 100   50 |
| white | 890-131  | 100   50 |



Mounting carrier; for 2- to 5-pole flying leads

| Color | Item No. | PU  |
|-------|----------|-----|
| black | 890-310  | 100 |
| white | 890-311  | 100 |



Operating tool with a partially insulated shaft; type 1; (2.5 x 0.4) mm blade

| Color | Item No. | PU |
|-------|----------|----|
| green | 210-719  | 1  |

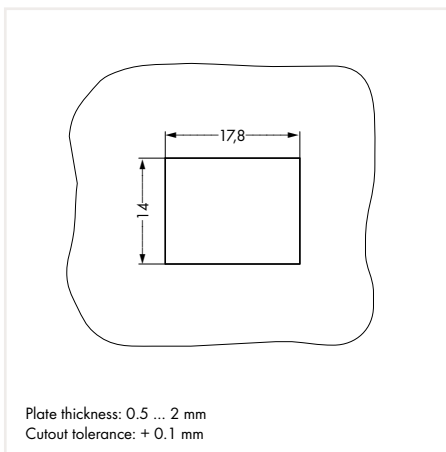
7



## Snap-In Socket and Plug

### 2 poles

### WINSTA® MINI ▶ 890 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

#### Electrical Data

| Coding               | A, I           |     |    |
|----------------------|----------------|-----|----|
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 250 V          | -   | -  |
| Rated surge voltage  | 4 kV           | -   | -  |
| Rated current        | 16 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 14 A           |     |    |

|                                   |  |
|-----------------------------------|--|
| Clearances and creepage distances | ≥ 5.5 mm (with strain relief ≥ 6.5 mm to exposed surfaces – protection class II) |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug)                  |

#### Connection Data

|   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Stranded conductor                                | 0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG   |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 mm <sup>2</sup>                         |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 mm <sup>2</sup>                         |

#### Mechanical Data

|                  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 16 A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                    |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | Ø 3.8 ... 8.2 mm  |
| Protection type  | IP40 (plugged in with strain relief housing)  |

#### Material Data

|                          |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

#### Environmental Requirements

|                                   |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

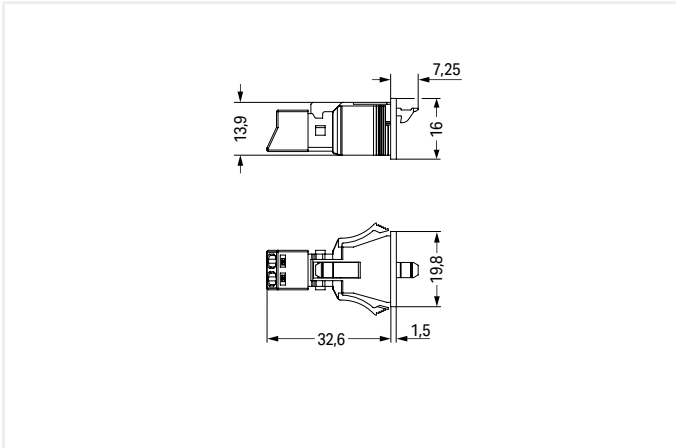
# Snap-In Socket and Plug

## 2 poles

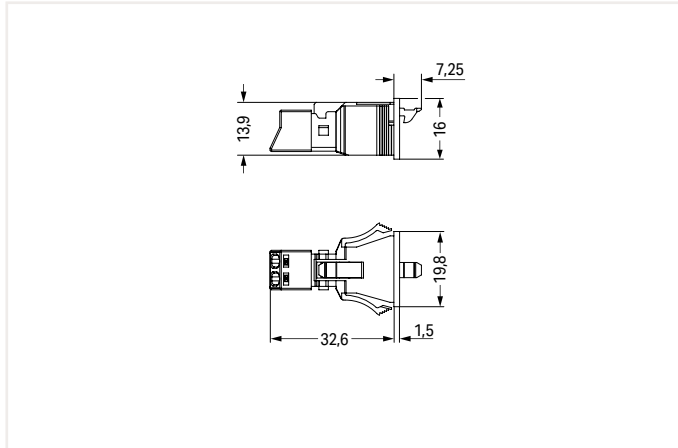
### WINSTA® MINI ▶ 890 Series



Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



| Socket  |        |         |          |    |
|---------|--------|---------|----------|----|
| Color   | Coding | Marking | Item No. | PU |
| ● black | A      | L N     | 890-702  | 50 |
| ○ white | A      | L N     | 890-722  | 50 |
| ● blue  | I      | + -     | 890-2102 | 50 |

| Plug    |        |         |          |    |
|---------|--------|---------|----------|----|
| Color   | Coding | Marking | Item No. | PU |
| ● black | A      | L N     | 890-712  | 50 |
| ○ white | A      | L N     | 890-732  | 50 |
| ● blue  | I      | + -     | 890-2112 | 50 |

Accessories; for all products on this page



| Lockout cap; for cutout; 2-pole |          |     |  |
|---------------------------------|----------|-----|--|
| Color                           | Item No. | PU  |  |
| ● black                         | 890-642  | 100 |  |
| ○ white                         | 890-692  | 100 |  |



| Operating tool; partially insulated; 2-way |          |    |  |
|--|----------|----|--|
| Color                                      | Item No. | PU |  |
| ● green                                    | 770-382  | 1  |  |

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## Socket and Plug ▶ without strain relief housing

### 3 poles

### WINSTA® MINI ▶ 890 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

#### Electrical Data

|                      |  | A              |    |
|----------------------|--|----------------|----|
| Coding               |  | IEC/EN 60664-1 |    |
| Ratings per          |  | IEC/EN 60664-1 |    |
| Overvoltage category |  | III            | II |
| Pollution degree     |  | 3              | 2  |
| Rated voltage        |  | 250 V          | -  |
| Rated surge voltage  |  | 4 kV           | -  |
| Rated current        |  | 16 A           | -  |
| Approvals per        |  | UL 1977        |    |
| Rated voltage (UL)   |  | 600 V          |    |
| Rated current UL     |  | 14 A           |    |

Clearances and creepage distances  $\geq 5.5$  mm to exposed surfaces

Contact resistance Approx. 1 m $\Omega$  (approx. 0.25 m $\Omega$  contact transition socket – plug)

#### Connection Data

|   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                           |
| Strip length                                      | 9 mm / 0.35 inch                              |
| Conductor range                                   |   |
| Solid conductor                                   | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG  |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG  |
| Stranded conductor                                | 0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG    |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG  |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup> / 22 ... 20 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 20 AWG  |

#### Mechanical Data

|                  |  |
|------------------|--|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load $I_N = 16$ A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)  |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                           |
| Retention forces | > 80 Nm; unlocked  |
| Cable diameter   | $\varnothing$ 4.5 ... 10 mm  |
| Protection type  | IP40 (plugged in with strain relief housing)   |

#### Material Data

|                          |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

#### Environmental Requirements

|                                   |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

# Socket and Plug

3 poles

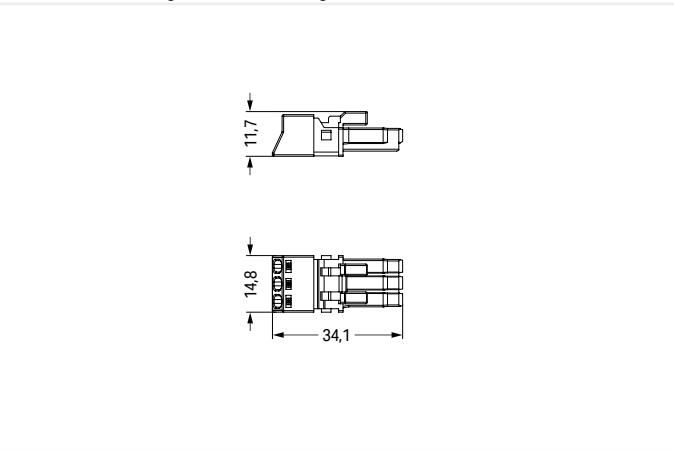
WINSTA® MINI ▶ 890 Series

## Socket



| Color   | Coding | Marking | Item No. | PU |
|---------|--------|---------|----------|----|
| ● black | A      | L ⊕ N   | 890-203  | 50 |
| ○ white | A      | L ⊕ N   | 890-223  | 50 |

Dimensions in mm (figure shows A-coding):

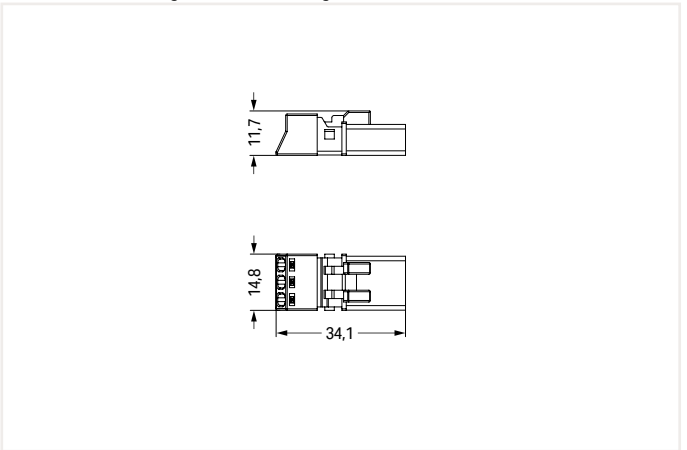


## Plug



| Color   | Coding | Marking | Item No. | PU |
|---------|--------|---------|----------|----|
| ● black | A      | L ⊕ N   | 890-213  | 50 |
| ○ white | A      | L ⊕ N   | 890-233  | 50 |

Dimensions in mm (figure shows A-coding):



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## Accessories; for all products on this page



Strain relief housing; 4.5 ... 10 mm cable diameter; 40 mm strip length

| Color | Item No. | PU |
|-------|----------|----|
| black | 890-503  | 50 |
| white | 890-513  | 50 |



Locking lever; for flying leads; manually operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 890-101  | 100   50 |
| white | 890-121  | 100   50 |



Locking lever; for flying leads; tool operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 890-111  | 100   50 |
| white | 890-131  | 100   50 |



Mounting carrier; for 2- to 5-pole flying leads

| Color | Item No. | PU  |
|-------|----------|-----|
| black | 890-310  | 100 |
| white | 890-311  | 100 |



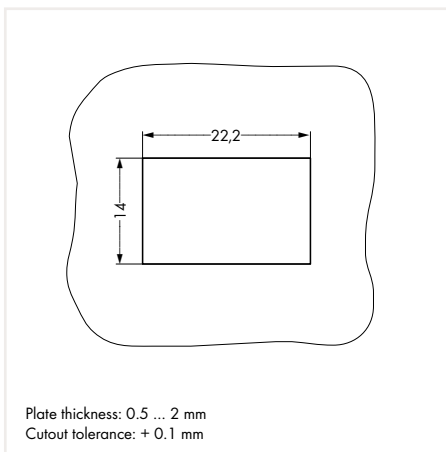
Operating tool with a partially insulated shaft; type 1; (2.5 x 0.4) mm blade

| Color | Item No. | PU |
|-------|----------|----|
| green | 210-719  | 1  |

## Snap-In Socket and Plug

### 3 poles

### WINSTA® MINI ▶ 890 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |
|----------------------|----------------|-----|----|
| Coding               | A              |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 250 V          | -   | -  |
| Rated surge voltage  | 4 kV           | -   | -  |
| Rated current        | 16 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 14 A           |     |    |

|                                   |  |
|-----------------------------------|--|
| Clearances and creepage distances | ≥ 5.5 mm (with strain relief ≥ 6.5 mm to exposed surfaces – protection class II) |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug)                  |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Stranded conductor                                | 0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG   |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 mm <sup>2</sup>                         |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 mm <sup>2</sup>                         |

| Mechanical Data  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 16 A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                    |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | Ø 4.5 ... 10 mm   |
| Protection type  | IP40 (plugged in with strain relief housing)  |

| Material Data            |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

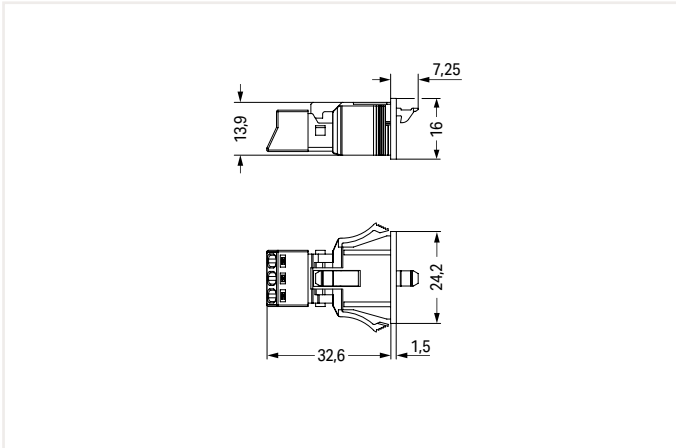
# Snap-In Socket and Plug

## 3 poles

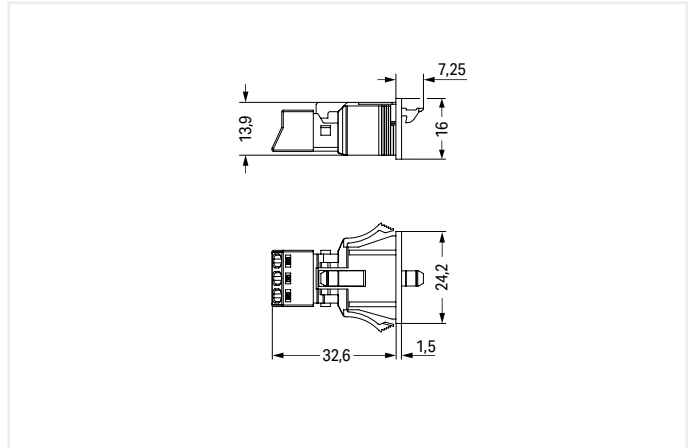
### WINSTA® MINI ▶ 890 Series



Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



| Socket  |        |         |          |    |
|---------|--------|---------|----------|----|
| Color   | Coding | Marking | Item No. | PU |
| ● black | A      | L ⊕ N   | 890-703  | 50 |
| ○ white | A      | L ⊕ N   | 890-723  | 50 |

| Plug    |        |         |          |    |
|---------|--------|---------|----------|----|
| Color   | Coding | Marking | Item No. | PU |
| ● black | A      | L ⊕ N   | 890-713  | 50 |
| ○ white | A      | L ⊕ N   | 890-733  | 50 |

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Accessories; for all products on this page



| Lockout cap; for cutout; 3-pole |          |     |  |
|---------------------------------|----------|-----|--|
| Color                           | Item No. | PU  |  |
| ● black                         | 770-643  | 100 |  |
| ○ white                         | 770-693  | 100 |  |



| Operating tool; partially insulated; 3-way |          |    |  |
|--|----------|----|--|
| Color                                      | Item No. | PU |  |
| ● green                                    | 770-383  | 1  |  |



## Socket and Plug ▶ without strain relief housing

### 4 poles

### WINSTA® MINI ▶ 890 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |
|----------------------|----------------|-----|----|
| Coding               | A              |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 400 V          | -   | -  |
| Rated surge voltage  | 6 kV           | -   | -  |
| Rated current        | 16 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 12 A           |     |    |

|                                   |   |
|-----------------------------------|---|
| Clearances and creepage distances | ≥ 5.5 mm to exposed surfaces                                    |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug) |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                           |
| Strip length                                      | 9 mm / 0.35 inch                              |
| Conductor range                                   |   |
| Solid conductor                                   | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG  |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG  |
| Stranded conductor                                | 0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG    |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG  |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup> / 22 ... 20 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 20 AWG  |

| Mechanical Data  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load $I_N = 16 A, 1.5 mm^2$ ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | ∅ 6.5 ... 10.5 mm   |
| Protection type  | IP40 (plugged in with strain relief housing)                                      |

| Material Data            |                                   |
|--------------------------|-----------------------------------|
| Insulation material      | Polyamide 66 (PA 66)              |
| Contact material         | Electrolytic copper ( $E_{Cu}$ )  |
| Contact plating          | Tin-plated                        |
| Clamping spring material | Chrome nickel spring steel (CrNi) |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

# Socket and Plug

## 4 poles

### WINSTA® MINI ▶ 890 Series

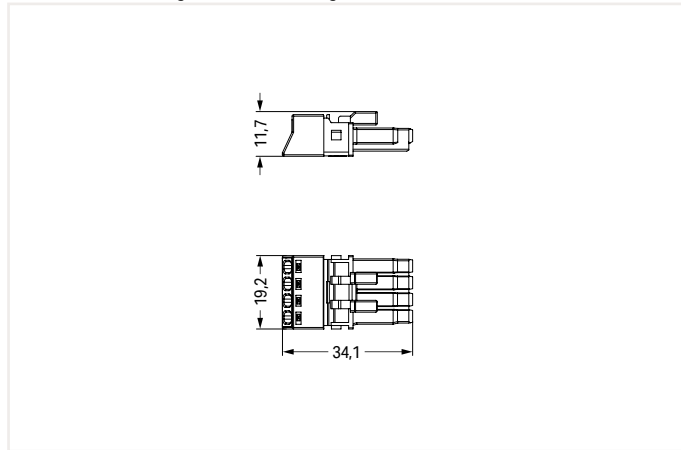
Socket Plug



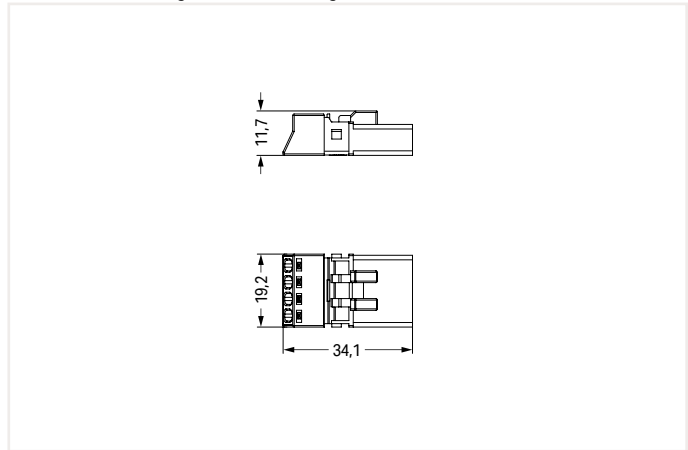
| Color   | Coding | Marking                           | Item No. | PU |
|---------|--------|-----------------------------------|----------|----|
| ● black | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 890-204  | 50 |
| ○ white | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 890-224  | 50 |

| Color   | Coding | Marking                           | Item No. | PU |
|---------|--------|-----------------------------------|----------|----|
| ● black | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 890-214  | 50 |
| ○ white | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 890-234  | 50 |

Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



7

Accessories; for all products on this page



Strain relief housing; 6.5 ... 10.5 mm cable diameter; 45 mm strip length

| Color | Item No. | PU |
|-------|----------|----|
| black | 890-504  | 50 |
| white | 890-514  | 50 |



Locking lever; for flying leads; manually operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 890-101  | 100   50 |
| white | 890-121  | 100   50 |



Locking lever; for flying leads; tool operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 890-111  | 100   50 |
| white | 890-131  | 100   50 |



Mounting carrier; for 2- to 5-pole flying leads

| Color | Item No. | PU  |
|-------|----------|-----|
| black | 890-310  | 100 |
| white | 890-311  | 100 |



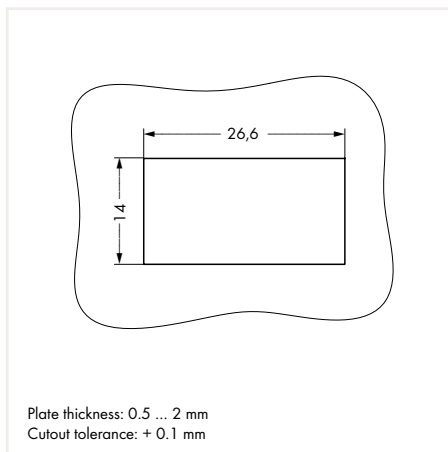
Operating tool with a partially insulated shaft; type 1; (2.5 x 0.4) mm blade

| Color | Item No. | PU |
|-------|----------|----|
| green | 210-719  | 1  |

## Snap-In Socket and Plug

### 4 poles

### WINSTA® MINI ▶ 890 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |
|----------------------|----------------|-----|----|
| Coding               | A              |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 400 V          | -   | -  |
| Rated surge voltage  | 6 kV           | -   | -  |
| Rated current        | 16 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 14 A           |     |    |

|                                   |  |
|-----------------------------------|--|
| Clearances and creepage distances | ≥ 5.5 mm (with strain relief ≥ 6.5 mm to exposed surfaces – protection class II) |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug)                  |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Stranded conductor                                | 0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG   |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 mm <sup>2</sup>                         |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 mm <sup>2</sup>                         |

| Mechanical Data  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 16 A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                    |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | Ø 6.5 ... 10.5 mm   |
| Protection type  | IP40 (plugged in with strain relief housing)  |

| Material Data            |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

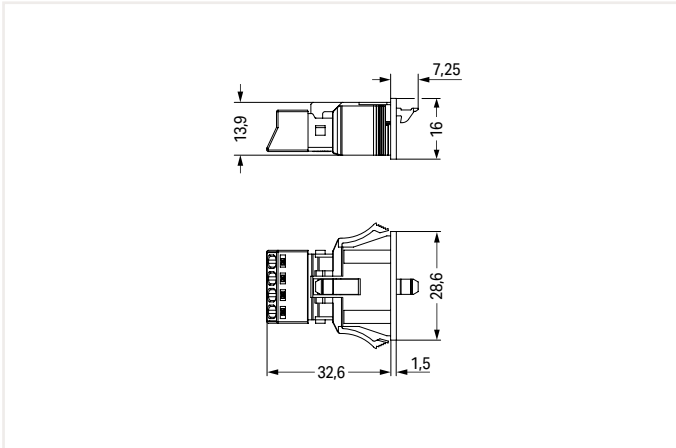
# Snap-In Socket and Plug

## 4 poles

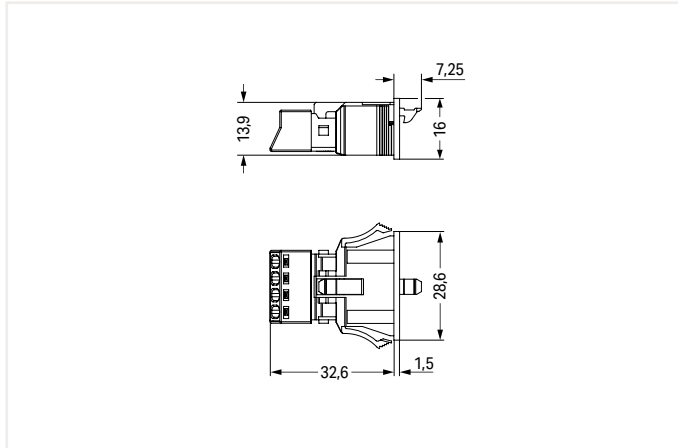
### WINSTA® MINI ▶ 890 Series



Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



| Socket  |        |           |          |    |
|---------|--------|-----------|----------|----|
| Color   | Coding | Marking   | Item No. | PU |
| ● black | A      | N ⊕ 2L 1L | 890-704  | 50 |
| ○ white | A      | N ⊕ 2L 1L | 890-724  | 50 |

| Plug    |        |           |          |    |
|---------|--------|-----------|----------|----|
| Color   | Coding | Marking   | Item No. | PU |
| ● black | A      | N ⊕ 2L 1L | 890-714  | 50 |
| ○ white | A      | N ⊕ 2L 1L | 890-734  | 50 |

7

Accessories; for all products on this page



| Lockout cap; for cutout; 4-pole |          |     |  |
|---------------------------------|----------|-----|--|
| Color                           | Item No. | PU  |  |
| ● black                         | 770-644  | 100 |  |
| ○ white                         | 770-694  | 100 |  |



Similar to figure

| Operating tool; partially insulated; 4-way |          |    |  |
|--|----------|----|--|
| Color                                      | Item No. | PU |  |
| ● green                                    | 770-384  | 1  |  |

## Socket and Plug ▶ without strain relief housing

### 5 poles

### WINSTA® MINI ▶ 890 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |
|----------------------|----------------|-----|----|
| Coding               | A, I           |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 400 V          | -   | -  |
| Rated surge voltage  | 6 kV           | -   | -  |
| Rated current        | 13 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 12 A           |     |    |

|                                   |   |
|-----------------------------------|---|
| Clearances and creepage distances | ≥ 5.5 mm to exposed surfaces                                    |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug) |

| Connection Data                                   |   |
|---|---|
| Connection technology                             | Push-in CAGE CLAMP®                           |
| Strip length                                      | 9 mm / 0.35 inch                              |
| Conductor range                                   |   |
| Solid conductor                                   | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG  |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG  |
| Stranded conductor                                | 0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG    |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG  |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 0.75 mm <sup>2</sup> / 22 ... 20 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 20 AWG  |

| Mechanical Data  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 16 A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                    |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | ∅ 6.5 ... 10.5 mm   |
| Protection type  | IP2xC (with strain relief housing)<br>IP40  |

| Material Data            |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

# Socket and Plug

## 5 poles

### WINSTA® MINI ▶ 890 Series

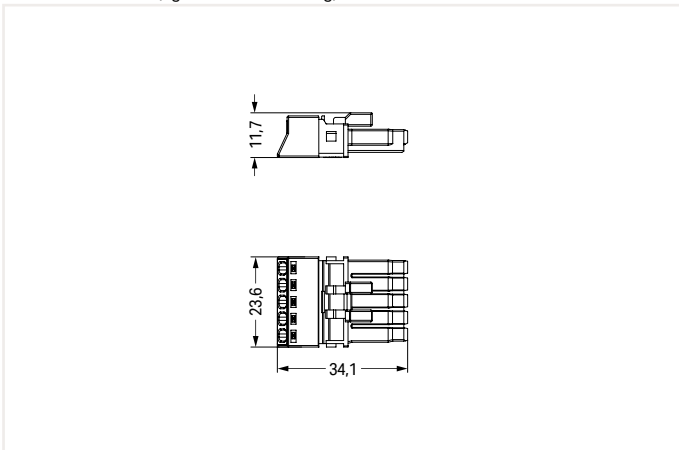
Socket Plug



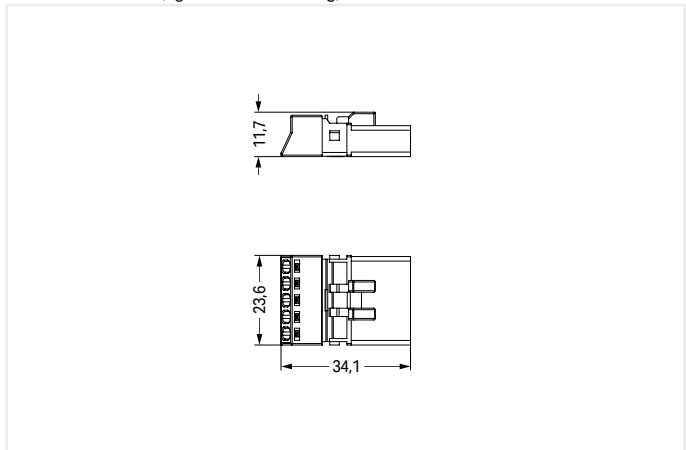
| Color   | Coding | Marking   | Item No. | PU |
|---------|--------|-----------|----------|----|
| ● black | A      | N ⊕ 1 2 3 | 890-205  | 50 |
| ○ white | A      | N ⊕ 1 2 3 | 890-225  | 50 |
| ● blue  | I      | N ⊕ L + - | 890-1105 | 50 |

| Color   | Coding | Marking   | Item No. | PU |
|---------|--------|-----------|----------|----|
| ● black | A      | N ⊕ 1 2 3 | 890-215  | 50 |
| ○ white | A      | N ⊕ 1 2 3 | 890-235  | 50 |
| ● blue  | I      | N ⊕ L + - | 890-1115 | 50 |

Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



7

Accessories; for all products on this page



Strain relief housing; 6.5 ... 10.5 mm cable diameter; 45 mm strip length

| Color | Item No. | PU |
|-------|----------|----|
| black | 890-505  | 50 |
| white | 890-515  | 50 |



Locking lever; for flying leads; manually operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 890-101  | 100   50 |
| white | 890-121  | 100   50 |



Locking lever; for flying leads; tool operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 890-111  | 100   50 |
| white | 890-131  | 100   50 |



Mounting carrier; for 2- to 5-pole flying leads

| Color | Item No. | PU  |
|-------|----------|-----|
| black | 890-310  | 100 |
| white | 890-311  | 100 |



Operating tool; for WINSTA® MINI pluggable connectors; 5 poles

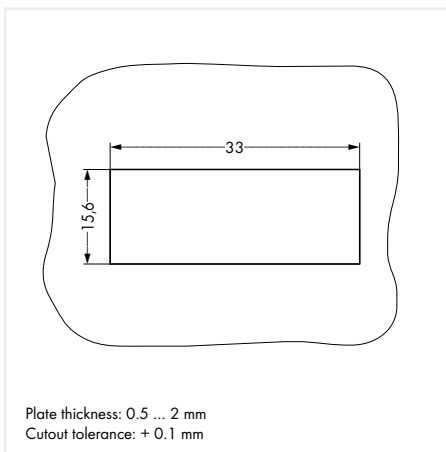
| Color | Item No. | PU |
|-------|----------|----|
| green | 890-385  | 1  |



## Snap-In Socket and Plug

### 5 poles

### WINSTA® MINI ▶ 890 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

#### Electrical Data

| Coding               | A, I           |     |    |
|----------------------|----------------|-----|----|
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 400 V          | -   | -  |
| Rated surge voltage  | 6 kV           | -   | -  |
| Rated current        | 13 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 14 A           |     |    |

|                                   |  |
|-----------------------------------|--|
| Clearances and creepage distances | ≥ 5.5 mm (with strain relief ≥ 6.5 mm to exposed surfaces – protection class II) |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug)                  |

#### Connection Data

|   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Stranded conductor                                | 0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG   |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 mm <sup>2</sup>                         |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 mm <sup>2</sup>                         |

#### Mechanical Data

|                  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 16 A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                    |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | Ø 6.5 ... 10.5 mm   |
| Protection type  | IP40 (plugged in with strain relief housing)  |

#### Material Data

|                          |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

#### Environmental Requirements

|                                   |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

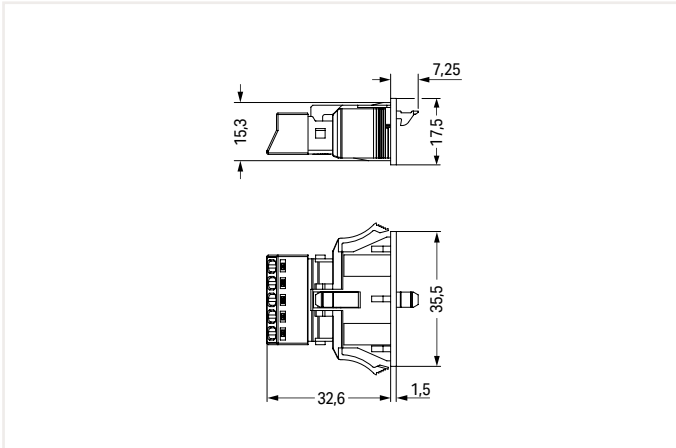
# Snap-In Socket and Plug

## 5 poles

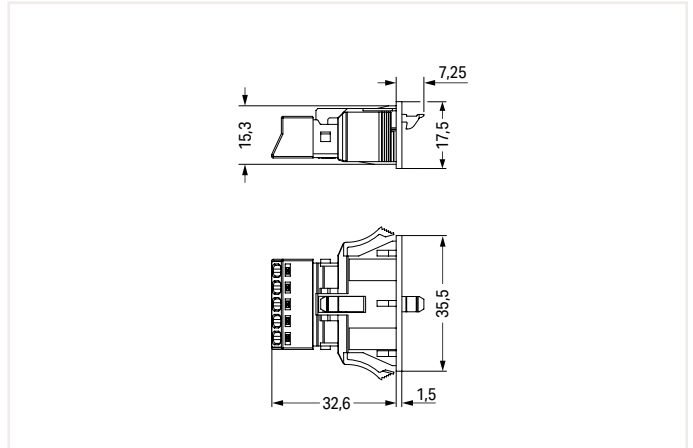
### WINSTA® MINI ▶ 890 Series



Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



| Socket  |        |           |          |    |
|---------|--------|-----------|----------|----|
| Color   | Coding | Marking   | Item No. | PU |
| ● black | A      | N ⊕ 1 2 3 | 890-705  | 50 |
| ○ white | A      | N ⊕ 1 2 3 | 890-725  | 50 |
| ● blue  | I      | N ⊕ L + - | 890-2105 | 50 |

| Plug    |        |           |          |    |
|---------|--------|-----------|----------|----|
| Color   | Coding | Marking   | Item No. | PU |
| ● black | A      | N ⊕ 1 2 3 | 890-715  | 50 |
| ○ white | A      | N ⊕ 1 2 3 | 890-735  | 50 |
| ● blue  | I      | N ⊕ L + - | 890-2115 | 50 |

Accessories; for all products on this page



| Lockout cap; for cutout; 2-pole |          |     |
|---------------------------------|----------|-----|
| Color                           | Item No. | PU  |
| ● black                         | 770-645  | 100 |
| ○ white                         | 770-695  | 100 |



| Operating tool; partially insulated; 2-way |          |    |
|--|----------|----|
| Color                                      | Item No. | PU |
| ● green                                    | 770-382  | 1  |

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## Socket and Plug ▶ without strain relief housing

### 2 poles

### WINSTA® MIDI ▶ 770 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |
|----------------------|----------------|-----|----|
| Coding               | A, I, L        |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 250 V          | -   | -  |
| Rated surge voltage  | 4 kV           | -   | -  |
| Rated current        | 25 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 23 A           |     |    |

|                                   |   |
|-----------------------------------|---|
| Clearances and creepage distances | ≥ 5.5 mm to exposed surfaces                                    |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug) |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Solid conductor; push-in termination              | 1.5 ... 4 mm <sup>2</sup> / 16 ... 12 AWG    |
| Stranded conductor                                | 0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG  |
| Fine-stranded conductor                           | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |

| Mechanical Data  |  |
|------------------|--|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load $I_N = 25$ A, 4 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)  |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                         |
| Retention forces | > 80 Nm; unlocked  |
| Cable diameter   | ∅ 7 ... 10.5 mm  |
| Protection type  | IP2xC (with strain relief housing)   |

| Material Data            |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

# Socket and Plug

## 2 poles

### WINSTA® MIDI ▶ 770 Series

Socket



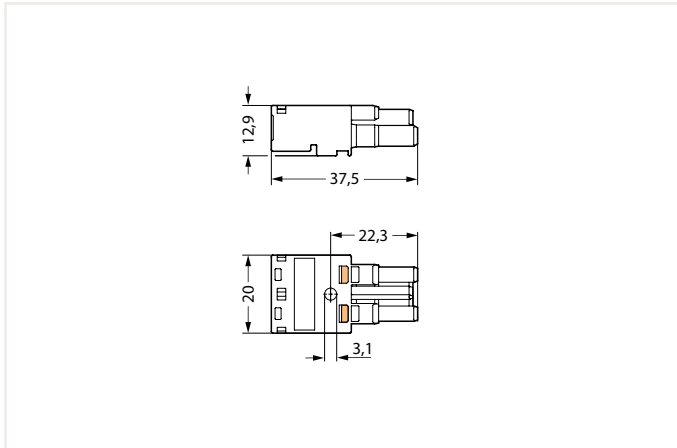
Plug



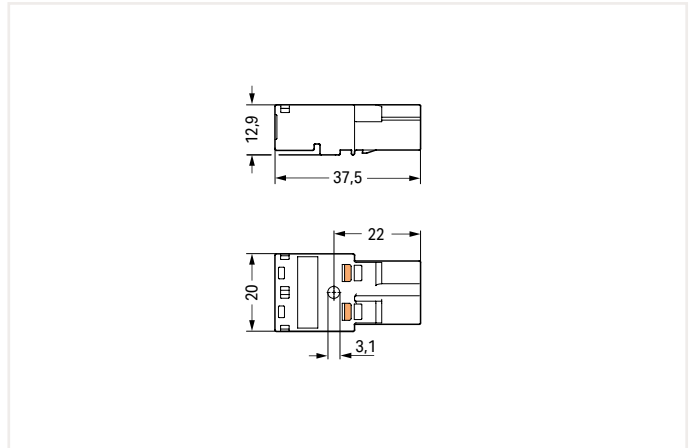
| Color       | Coding | Marking | Item No. | PU  |
|-------------|--------|---------|----------|-----|
| ● black     | A      | L N     | 770-202  | 100 |
| ○ white     | A      | L N     | 770-222  | 100 |
| ● blue      | I      | DA+ DA- | 770-1102 | 100 |
| ● dark gray | L      | L' N'   | 770-1162 | 100 |

| Color       | Coding | Marking | Item No. | PU  |
|-------------|--------|---------|----------|-----|
| ● black     | A      | L N     | 770-212  | 100 |
| ○ white     | A      | L N     | 770-232  | 100 |
| ● blue      | I      | DA+ DA- | 770-1112 | 100 |
| ● dark gray | L      | L' N'   | 770-1172 | 100 |

Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



7

Accessories; for all products on this page



Strain relief housing; 7 ... 10.5 mm cable diameter; 35 mm strip length

| Color | Item No.        | PU |
|-------|-----------------|----|
| black | 770-502/041-000 | 50 |
| white | 770-512/041-000 | 50 |



Locking lever; for flying leads; manually operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 770-101  | 100   25 |
| white | 770-121  | 100   25 |



Locking lever; for flying leads; tool operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 770-111  | 100   25 |
| white | 770-131  | 100   25 |



Lockout cap; for socket; separable; 12-pole

| Color | Item No. | PU  |
|-------|----------|-----|
| black | 770-201  | 100 |
| white | 770-221  | 100 |



Lockout cap; for plug; separable; 5-pole

| Color  | Item No. | PU  |
|--------|----------|-----|
| yellow | 770-360  | 100 |

## Socket and Plug ▶ without strain relief housing

### 3 poles

### WINSTA® MIDI ▶ 770 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |
|----------------------|----------------|-----|----|
| Coding               | A, P, R, S     |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 250 V          | -   | -  |
| Rated surge voltage  | 6 kV           | -   | -  |
| Rated current        | 25 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 23 A           |     |    |

|                                   |   |
|-----------------------------------|---|
| Clearances and creepage distances | ≥ 5.5 mm to exposed surfaces                                    |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug) |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Solid conductor; push-in termination              | 1.5 ... 4 mm <sup>2</sup> / 16 ... 12 AWG    |
| Stranded conductor                                | 0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG  |
| Fine-stranded conductor                           | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |

| Mechanical Data  |  |
|------------------|--|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load $I_N = 25$ A, 4 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)  |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                         |
| Retention forces | > 80 Nm; unlocked  |
| Cable diameter   | Ø 8 ... 11.5 mm  |
| Protection type  | IP2xC (with strain relief housing)   |

| Material Data            |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

# Socket and Plug

## 3 poles

### WINSTA® MIDI ▶ 770 Series

Socket

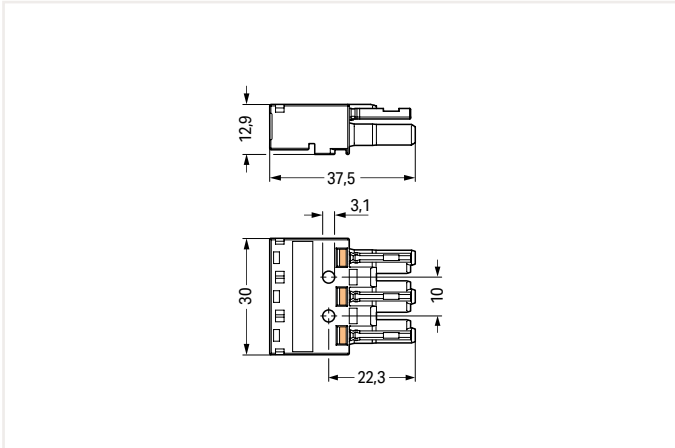
Plug



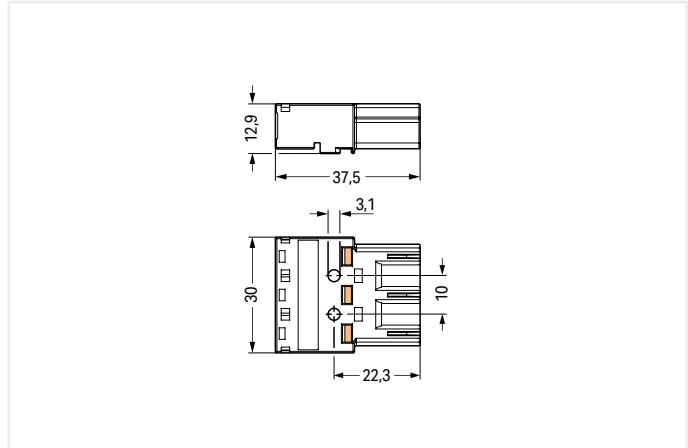
| Color    | Coding | Marking   | Item No. | PU  |
|----------|--------|-----------|----------|-----|
| ● black  | A      | L ⊕ N     | 770-203  | 100 |
| ○ white  | A      | L ⊕ N     | 770-223  | 100 |
| ● red    | P      | L ⊕ N     | 770-1303 | 100 |
| ● orange | R      | LON LON S | 770-1343 | 100 |
| ● brown  | S      | 1 2 S     | 770-1363 | 100 |

| Color    | Coding | Marking   | Item No. | PU  |
|----------|--------|-----------|----------|-----|
| ● black  | A      | L ⊕ N     | 770-213  | 50  |
| ○ white  | A      | L ⊕ N     | 770-233  | 50  |
| ● red    | P      | L ⊕ N     | 770-1313 | 100 |
| ● orange | R      | LON LON S | 770-1353 | 100 |
| ● brown  | S      | 1 2 S     | 770-1373 | 100 |

Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



Accessories; for all products on this page



Strain relief housing; for two cables; 8 ... 11.5 mm cable diameter; 55 mm strip length

| Color | Item No. | PU |
|-------|----------|----|
| black | 770-503  | 50 |
| white | 770-513  | 50 |



Locking lever; for flying leads; manually operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 770-101  | 100   25 |
| white | 770-121  | 100   25 |



Locking lever; for flying leads; tool operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 770-111  | 100   25 |
| white | 770-131  | 100   25 |



Lockout cap; for socket; separable; 12-pole

| Color | Item No. | PU  |
|-------|----------|-----|
| black | 770-201  | 100 |
| white | 770-221  | 100 |



Lockout cap; for plug; separable; 5-pole

| Color  | Item No. | PU  |
|--------|----------|-----|
| yellow | 770-360  | 100 |

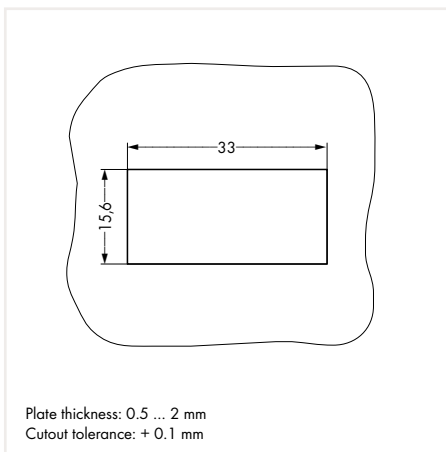
7



## Snap-In Socket and Plug

### 3 poles

### WINSTA® MIDI ▶ 770 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

#### Electrical Data

|                      | A, P, R, S     |     |    |
|----------------------|----------------|-----|----|
| Coding               | IEC/EN 60664-1 |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II |
| Pollution degree     | 3              | 2   | 2  |
| Rated voltage        | 250 V          | -   | -  |
| Rated surge voltage  | 4 kV           | -   | -  |
| Rated current        | 25 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |
| Rated voltage (UL)   | 600 V          |     |    |
| Rated current UL     | 14 A           |     |    |

|                                   |  |
|-----------------------------------|--|
| Clearances and creepage distances | ≥ 5.5 mm (with strain relief ≥ 6.5 mm to exposed surfaces – protection class II) |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug)                  |

#### Connection Data

|   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Stranded conductor                                | 0.25 ... 1 mm <sup>2</sup> / 22 ... 18 AWG   |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 mm <sup>2</sup>                         |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 mm <sup>2</sup>                         |

#### Mechanical Data

|                  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 16 A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                    |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | ∅ 8 ... 11.5 mm   |
| Protection type  | IP2xC (with strain relief housing)  |

#### Material Data

|                          |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

#### Environmental Requirements

|                                   |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

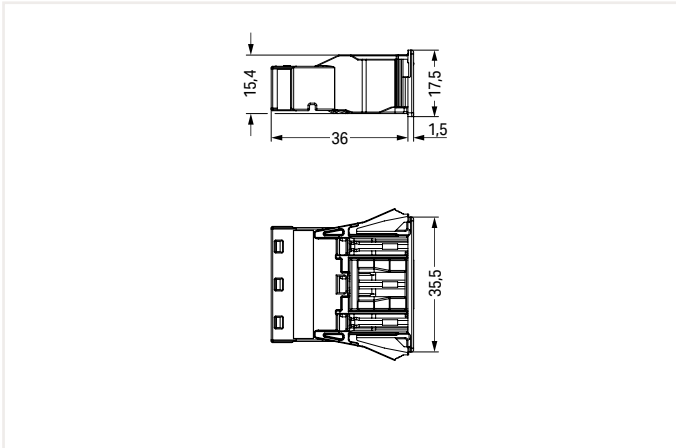
# Snap-In Socket and Plug

## 3 poles

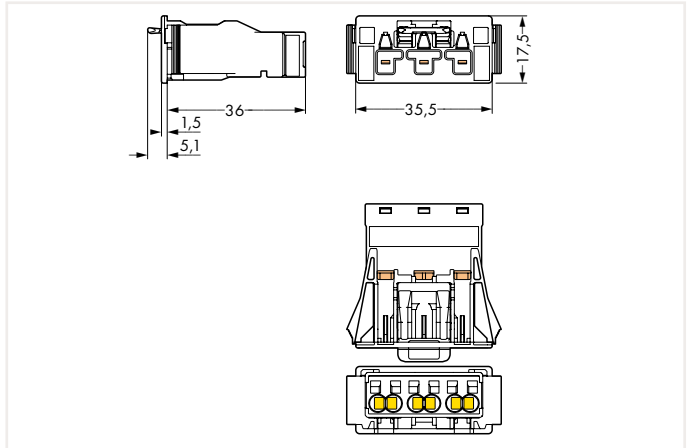
### WINSTA® MIDI ▶ 770 Series



Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



| Socket   |        |           |          |     |
|----------|--------|-----------|----------|-----|
| Color    | Coding | Marking   | Item No. | PU  |
| ● black  | A      | L ⊕ N     | 770-703  | 100 |
| ○ white  | A      | L ⊕ N     | 770-723  | 100 |
| ● red    | P      | L ⊕ N     | 770-2303 | 100 |
| ● orange | R      | LON LON S | 770-2343 | 100 |
| ● brown  | S      | 1 2 L     | 770-2363 | 100 |

| Plug     |        |           |          |     |
|----------|--------|-----------|----------|-----|
| Color    | Coding | Marking   | Item No. | PU  |
| ● black  | A      | L ⊕ N     | 770-713  | 100 |
| ○ white  | A      | L ⊕ N     | 770-733  | 100 |
| ● red    | P      | L ⊕ N     | 770-2313 | 100 |
| ● orange | R      | LON LON S | 770-2353 | 100 |

Accessories; for all products on this page



| Lockout cap; for cutout; 3-pole |          |     |
|---------------------------------|----------|-----|
| Color                           | Item No. | PU  |
| ● black                         | 770-643  | 100 |
| ○ white                         | 770-693  | 100 |



| Operating tool; partially insulated; 3-way |          |    |
|--|----------|----|
| Color                                      | Item No. | PU |
| ● green                                    | 770-383  | 1  |

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## Socket and Plug ▶ without strain relief housing

### 4 poles

### WINSTA® MIDI ▶ 770 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |                |     |    |
|----------------------|----------------|-----|----|----------------|-----|----|
| Coding               | A              |     |    | Q              |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II | III            | III | II |
| Pollution degree     | 3              | 2   | 2  | 3              | 2   | 2  |
| Rated voltage        | 400 V          | -   | -  | 400 V          | -   | -  |
| Rated surge voltage  | 6 kV           | -   | -  | 6 kV           | -   | -  |
| Rated current        | 25 A           | -   | -  | 32 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |                |     |    |
| Rated voltage (UL)   | 600 V          |     |    |                |     |    |
| Rated current UL     | 23 A           |     |    |                |     |    |

|                                   |   |
|-----------------------------------|---|
| Clearances and creepage distances | ≥ 5.5 mm to exposed surfaces                                    |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug) |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Solid conductor; push-in termination              | 1.5 ... 4 mm <sup>2</sup> / 16 ... 12 AWG    |
| Stranded conductor                                | 0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG  |
| Fine-stranded conductor                           | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |

| Mechanical Data  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 25 A, 4 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                  |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | ∅ 9 ... 13 mm   |
| Protection type  | IP2xC (with strain relief housing)  |

| Material Data            |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

# Socket and Plug

## 4 poles

### WINSTA® MIDI ▶ 770 Series

Socket



Plug



| Color   | Coding | Marking                           | Item No. | PU |
|---------|--------|-----------------------------------|----------|----|
| ● black | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 770-204  | 50 |
| ○ white | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 770-224  | 50 |

| Color   | Coding | Marking                           | Item No. | PU |
|---------|--------|-----------------------------------|----------|----|
| ● black | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 770-214  | 50 |
| ○ white | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 770-234  | 50 |

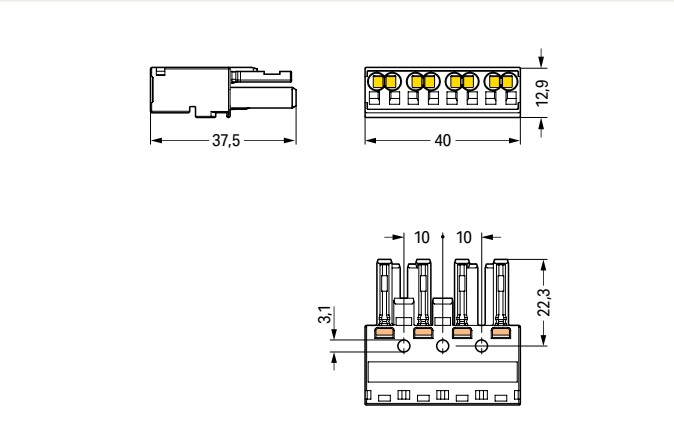
For "Clean Ground" applications; rated up to 32 A

| Color   | Coding | Marking     | Item No. | PU |
|---------|--------|-------------|----------|----|
| ● green | Q      | N PE1 PE2 L | 770-1324 | 50 |

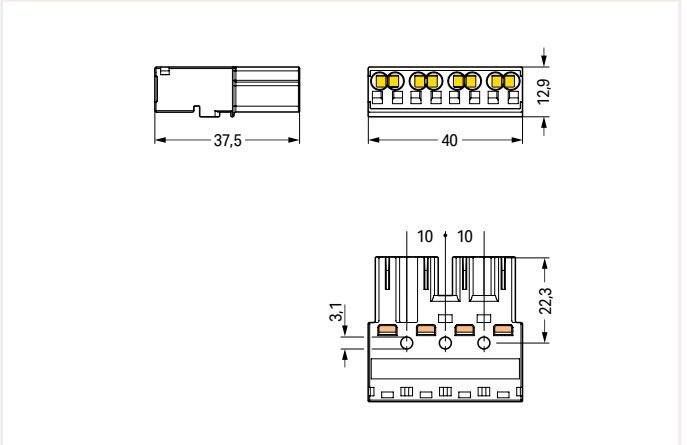
For "Clean Ground" applications; rated up to 32 A

| Color   | Coding | Marking     | Item No. | PU |
|---------|--------|-------------|----------|----|
| ● green | Q      | N PE1 PE2 L | 770-1334 | 50 |

Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



Accessories; for all products on this page



Strain relief housing; for two cables; 9 ... 13 mm cable diameter; 55 mm strip length

| Color | Item No. | PU |
|-------|----------|----|
| black | 770-504  | 50 |
| white | 770-514  | 50 |



Locking lever; for flying leads; manually operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 770-101  | 100   25 |
| white | 770-121  | 100   25 |



Locking lever; for flying leads; tool operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 770-111  | 100   25 |
| white | 770-131  | 100   25 |



Lockout cap; for socket; separable; 12-pole

| Color | Item No. | PU  |
|-------|----------|-----|
| black | 770-201  | 100 |
| white | 770-221  | 100 |



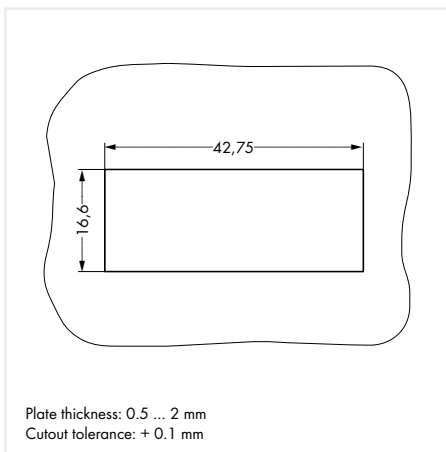
Lockout cap; for plug; separable; 5-pole

| Color  | Item No. | PU  |
|--------|----------|-----|
| yellow | 770-360  | 100 |

## Snap-In Socket and Plug

### 4 poles

### WINSTA® MIDI ▶ 770 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |                |     |    |
|----------------------|----------------|-----|----|----------------|-----|----|
| Coding               | A              |     |    | Q              |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II | III            | III | II |
| Pollution degree     | 3              | 2   | 2  | 3              | 2   | 2  |
| Rated voltage        | 400 V          | -   | -  | 400 V          | -   | -  |
| Rated surge voltage  | 4 kV           | -   | -  | 6 kV           | -   | -  |
| Rated current        | 25 A           | -   | -  | 32 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |                |     |    |
| Rated voltage (UL)   | 600 V          |     |    |                |     |    |
| Rated current UL     | 14 A           |     |    |                |     |    |

|                                   |  |
|-----------------------------------|--|
| Clearances and creepage distances | ≥ 5.5 mm (with strain relief ≥ 6.5 mm to exposed surfaces – protection class II) |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug)                  |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Stranded conductor                                | 0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG  |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 mm <sup>2</sup>                         |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 mm <sup>2</sup>                         |

| Mechanical Data  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 16 A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                    |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | ∅ 9 ... 13 mm   |
| Protection type  | IP2xC (with strain relief housing)  |

| Material Data            |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

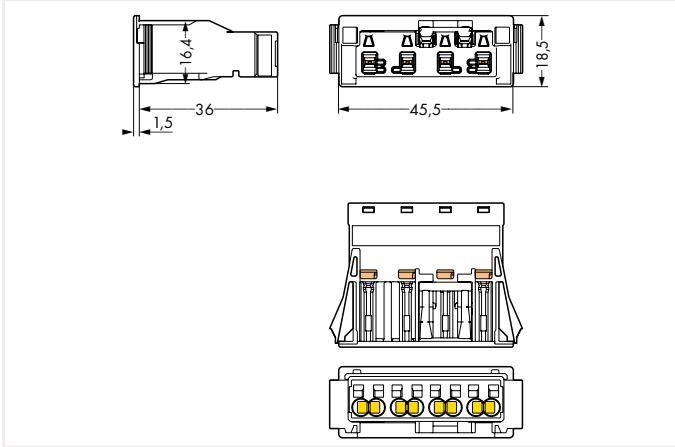
# Snap-In Socket and Plug

## 4 poles

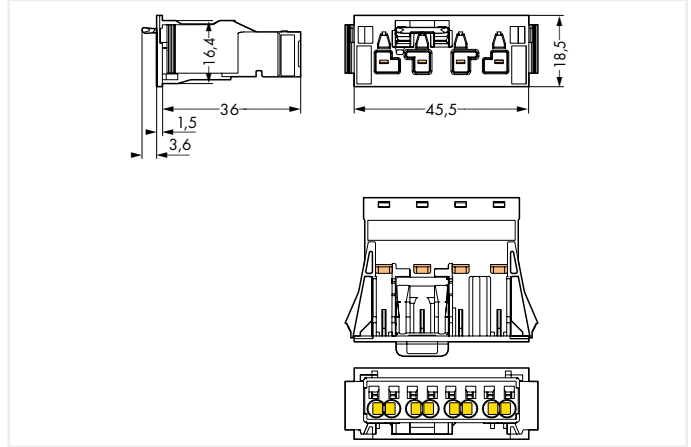
### WINSTA® MIDI ▶ 770 Series



Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



| Socket  |        |                                   |          |     |
|---------|--------|-----------------------------------|----------|-----|
| Color   | Coding | Marking                           | Item No. | PU  |
| ● black | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 770-704  | 100 |
| ○ white | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 770-724  | 100 |

| Plug    |        |                                   |          |     |
|---------|--------|-----------------------------------|----------|-----|
| Color   | Coding | Marking                           | Item No. | PU  |
| ● black | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 770-714  | 100 |
| ○ white | A      | N ⊕ 2 <sub>L</sub> 1 <sub>L</sub> | 770-734  | 100 |

| For "Clean Ground" applications; rated up to 32 A |        |             |          |     |
|---|--------|-------------|----------|-----|
| Color   | Coding | Marking     | Item No. | PU  |
| ● green   | Q      | N PE1 PE2 L | 770-2324 | 100 |

| For "Clean Ground" applications; rated up to 32 A |        |             |          |     |
|---|--------|-------------|----------|-----|
| Color   | Coding | Marking     | Item No. | PU  |
| ● green   | Q      | N PE1 PE2 L | 770-2334 | 100 |

Accessories; for all products on this page



| Lockout cap; for cutout; 4-pole |          |     |
|---------------------------------|----------|-----|
| Color                           | Item No. | PU  |
| ● black                         | 770-644  | 100 |
| ○ white                         | 770-694  | 100 |



| Operating tool with a partially insulated shaft; type 2; (2.5 x 0.4) mm blade |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● green   | 210-719  | 1  |

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## Socket and Plug ▶ without strain relief housing

### 5 poles

### WINSTA® MIDI ▶ 770 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

| Electrical Data      |                |     |    |                |     |    |
|----------------------|----------------|-----|----|----------------|-----|----|
| Coding               | A, I, L, P     |     |    | Q              |     |    |
| Ratings per          | IEC/EN 60664-1 |     |    | IEC/EN 60664-1 |     |    |
| Overvoltage category | III            | III | II | III            | III | II |
| Pollution degree     | 3              | 2   | 2  | 3              | 2   | 2  |
| Rated voltage        | 400 V          | -   | -  | 400 V          | -   | -  |
| Rated surge voltage  | 6 kV           | -   | -  | 6 kV           | -   | -  |
| Rated current        | 25 A           | -   | -  | 32 A           | -   | -  |
| Approvals per        | UL 1977        |     |    |                |     |    |
| Rated voltage (UL)   | 600 V          |     |    |                |     |    |
| Rated current UL     | 23 A           |     |    |                |     |    |

|                                   |   |
|-----------------------------------|---|
| Clearances and creepage distances | ≥ 5.5 mm to exposed surfaces                                    |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug) |

| Connection Data                                   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Solid conductor; push-in termination              | 1.5 ... 4 mm <sup>2</sup> / 16 ... 12 AWG    |
| Stranded conductor                                | 0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG  |
| Fine-stranded conductor                           | 0.5 ... 4 mm <sup>2</sup> / 20 ... 12 AWG    |
| Fine-stranded conductor; with insulated ferrule   | 0.25 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |

| Mechanical Data  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 25 A, 4 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                  |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | ∅ 9 ... 13 mm   |
| Protection type  | IP2xC (with strain relief housing)  |

| Material Data            |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

| Environmental Requirements        |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

# Socket and Plug

## 5 poles

### WINSTA® MIDI ▶ 770 Series

Socket



Plug



| Color       | Coding | Marking       | Item No. | PU |
|-------------|--------|---------------|----------|----|
| ● black     | A      | N ⊕ L1 L2 L3  | 770-205  | 50 |
| ○ white     | A      | N ⊕ L1 L2 L3  | 770-225  | 50 |
| ● blue      | I      | N ⊕ L DA- DA+ | 770-1105 | 50 |
| ● dark gray | L      | N ⊕ L N' L'   | 770-1165 | 50 |
| ● red       | P      | N ⊕ L1 L2 L3  | 770-1305 | 50 |

| Color       | Coding | Marking       | Item No. | PU |
|-------------|--------|---------------|----------|----|
| ● black     | A      | N ⊕ L1 L2 L3  | 770-215  | 50 |
| ○ white     | A      | N ⊕ L1 L2 L3  | 770-235  | 50 |
| ● blue      | I      | N ⊕ L DA- DA+ | 770-1115 | 50 |
| ● dark gray | L      | N ⊕ L N' L'   | 770-1175 | 50 |
| ● red       | P      | N ⊕ L1 L2 L3  | 770-1315 | 50 |

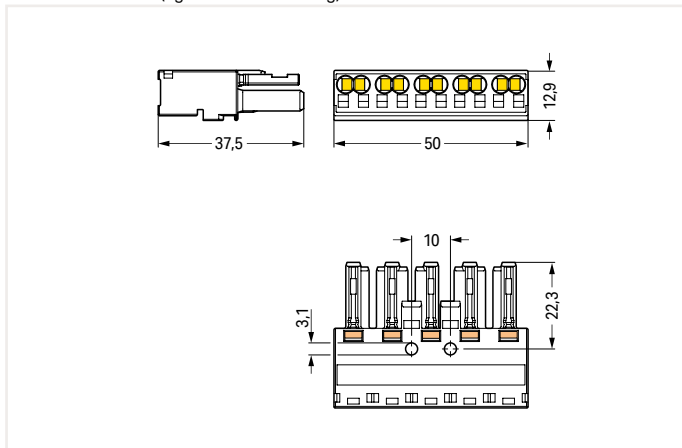
For "Clean Ground" applications; rated up to 32 A

| Color   | Coding | Marking         | Item No. | PU |
|---------|--------|-----------------|----------|----|
| ● green | Q      | N PE1 PE2 PE3 L | 770-1325 | 50 |

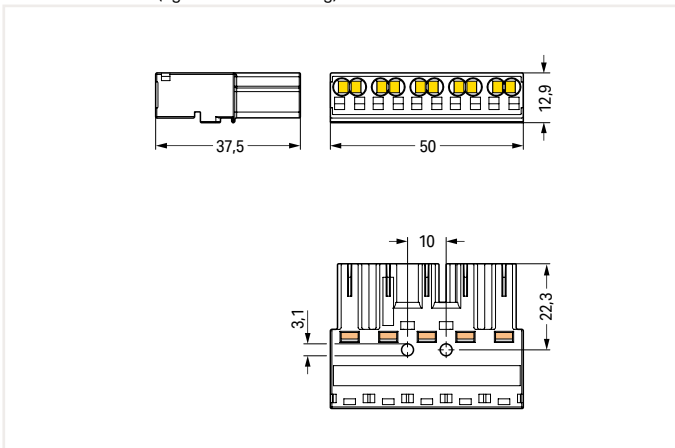
For "Clean Ground" applications; rated up to 32 A

| Color   | Coding | Marking         | Item No. | PU |
|---------|--------|-----------------|----------|----|
| ● green | Q      | N PE1 PE2 PE3 L | 770-1335 | 50 |

Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



Accessories; for all products on this page



Strain relief housing; for two cables; 9 ... 13 mm cable diameter; 55 mm strip length

| Color | Item No. | PU |
|-------|----------|----|
| black | 770-505  | 25 |
| white | 770-515  | 25 |



Locking lever; for flying leads; manually operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 770-101  | 100   25 |
| white | 770-121  | 100   25 |



Locking lever; for flying leads; tool operated

| Color | Item No. | PU   SPU |
|-------|----------|----------|
| black | 770-111  | 100   25 |
| white | 770-131  | 100   25 |



Lockout cap; for socket; separable; 12-pole

| Color | Item No. | PU  |
|-------|----------|-----|
| black | 770-201  | 100 |
| white | 770-221  | 100 |



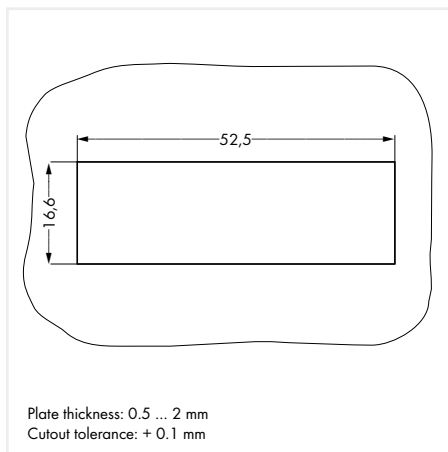
Lockout cap; for plug; separable; 5-pole

| Color  | Item No. | PU  |
|--------|----------|-----|
| yellow | 770-360  | 100 |

## Snap-In Socket and Plug

### 5 poles

### WINSTA® MIDI ▶ 770 Series



- Installation connectors are designed for connection and disconnection while not under load.
- There is no hazard-inducing interchangeability with systems based on IEC 60309, IEC 60320, IEC 60906 and with national connector and socket systems.
- Compliance with the standards (IEC 61535) does not guarantee hazard-preventing, non-interchangeability with installation connector systems from various manufacturers.
- Installation connector systems are not a substitute for residential connector/socket systems.

#### Electrical Data

| Coding               | A, I, P        |     |    | Q              |     |    |
|----------------------|----------------|-----|----|----------------|-----|----|
|                      | IEC/EN 60664-1 |     |    | IEC/EN 60664-1 |     |    |
| Ratings per          | III            | III | II | III            | III | II |
| Overvoltage category | 3              | 2   | 2  | 3              | 2   | 2  |
| Pollution degree     | 400 V          | -   | -  | 400 V          | -   | -  |
| Rated voltage        | 4 kV           | -   | -  | 6 kV           | -   | -  |
| Rated surge voltage  | 25 A           | -   | -  | 32 A           | -   | -  |
| Rated current        | UL 1977        |     |    |                |     |    |
| Approvals per        | 600 V          |     |    |                |     |    |
| Rated voltage (UL)   | 14 A           |     |    |                |     |    |
| Rated current UL     |                |     |    |                |     |    |

|                                   |  |
|-----------------------------------|--|
| Clearances and creepage distances | ≥ 5.5 mm (with strain relief ≥ 6.5 mm to exposed surfaces – protection class II) |
| Contact resistance                | Approx. 1 mΩ (approx. 0.25 mΩ contact transition socket – plug)                  |

#### Connection Data

|   |  |
|---|--|
| Connection technology                             | Push-in CAGE CLAMP®                          |
| Strip length                                      | 9 mm / 0.35 inch                             |
| Conductor range                                   |  |
| Solid conductor                                   | 0.5 ... 4 mm <sup>2</sup> / 22 ... 12 AWG    |
| Solid conductor; push-in termination              | 0.75 ... 1.5 mm <sup>2</sup> / 20 ... 16 AWG |
| Stranded conductor                                | 0.5 ... 2.5 mm <sup>2</sup> / 20 ... 14 AWG  |
| Fine-stranded conductor                           | 0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 AWG |
| Fine-stranded conductor; with insulated ferrule   | 0.25 mm <sup>2</sup>                         |
| Fine-stranded conductor; with uninsulated ferrule | 0.25 mm <sup>2</sup>                         |

#### Mechanical Data

|                  |   |
|------------------|---|
| Mating cycles    | 200 (without resistive load)<br>100 (with resistive load I <sub>N</sub> = 16 A, 1.5 mm <sup>2</sup> ) |
| Mating forces    | 20 ... 70 Nm (depending on pole number)   |
| Unmating forces  | 20 ... 70 Nm (depending on pole number); without locking mechanism                                    |
| Retention forces | > 80 Nm; unlocked   |
| Cable diameter   | Ø 3.8 ... 8.2 mm  |
| Protection type  | IP2xC (with strain relief housing)  |

#### Material Data

|                          |  |
|--------------------------|--|
| Insulation material      | Polyamide 66 (PA 66)                   |
| Contact material         | Electrolytic copper (E <sub>cu</sub> ) |
| Contact plating          | Tin-plated                             |
| Clamping spring material | Chrome nickel spring steel (CrNi)      |

#### Environmental Requirements

|                                   |                |
|-----------------------------------|----------------|
| Processing temperature            | -5 ... +40 °C  |
| Continuous operating temperature: | -35 ... +85 °C |

#### Note:

- All connectors for mounted installations (snap-in versions, pluggable PCB connectors, distribution connectors) are factory-equipped with locking levers to ensure plugs and sockets are securely locked. Additional locking levers are only required for "flying leads" (plug/socket).
- Codings feature a mechanical protection against mismatching.

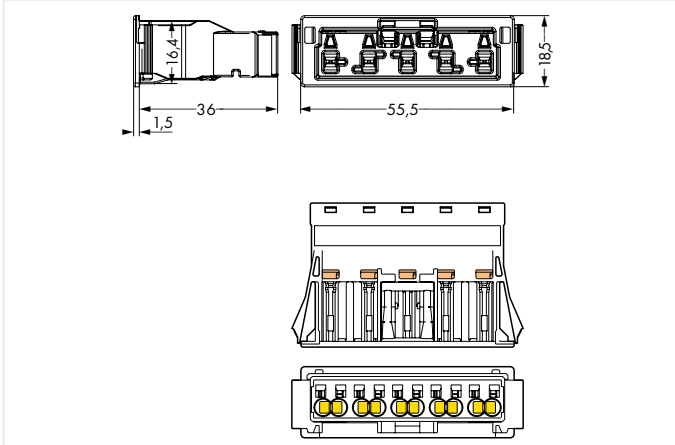
# Snap-In Socket and Plug

## 5 poles

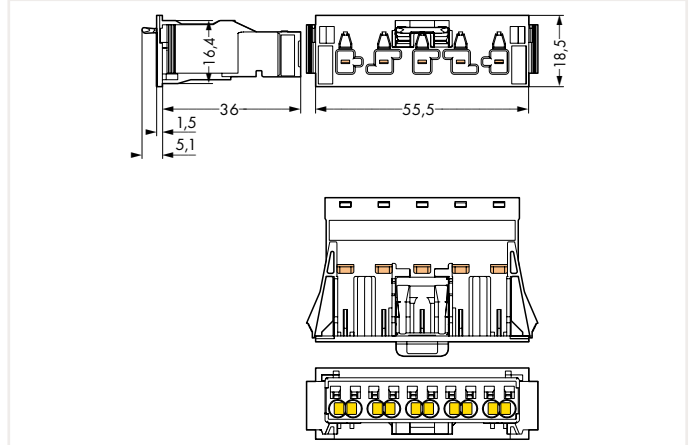
### WINSTA® MIDI ▶ 770 Series



Dimensions in mm (figure shows A-coding):



Dimensions in mm (figure shows A-coding):



| Socket  |        |               |          |    |
|---------|--------|---------------|----------|----|
| Color   | Coding | Marking       | Item No. | PU |
| ● black | A      | N ⊕ L1 L2 L3  | 770-705  | 50 |
| ○ white | A      | N ⊕ L1 L2 L3  | 770-725  | 50 |
| ● blue  | I      | N ⊕ L DA- DA+ | 770-2105 | 50 |
| ● red   | P      | N ⊕ L1 L2 L3  | 770-2305 | 50 |

| Plug    |        |               |          |    |
|---------|--------|---------------|----------|----|
| Color   | Coding | Marking       | Item No. | PU |
| ● black | A      | N ⊕ L1 L2 L3  | 770-715  | 50 |
| ○ white | A      | N ⊕ L1 L2 L3  | 770-735  | 50 |
| ● blue  | I      | N ⊕ L DA- DA+ | 770-2115 | 50 |
| ● red   | P      | N ⊕ L1 L2 L3  | 770-2315 | 50 |

| For "Clean Ground" applications; rated up to 32 A |        |                 |          |    |
|---|--------|-----------------|----------|----|
| Color   | Coding | Marking         | Item No. | PU |
| ● green   | Q      | N PE1 PE2 PE3 L | 770-2325 | 50 |

| For "Clean Ground" applications; rated up to 32 A |        |                 |          |    |
|---|--------|-----------------|----------|----|
| Color   | Coding | Marking         | Item No. | PU |
| ● green   | Q      | N PE1 PE2 PE3 L | 770-2335 | 50 |

Accessories; for all products on this page



| Lockout cap; for cutout; 5-pole |          |     |
|---------------------------------|----------|-----|
| Color                           | Item No. | PU  |
| ● black                         | 770-645  | 100 |
| ○ white                         | 770-695  | 100 |











| Operating tool with a partially insulated shaft; type 2; (3.5 x 0.5) mm blade |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● green   | 210-719  | 1  |



# WAGO Installation Connectors

## WAGO Installation Connectors

|   | Series   | Page |
|---|--|------|
|    | Lighting Connectors<br>Service Connectors<br>224   | 237  |
|    | PUSH WIRE® Junction Box Connectors for Solid Conductors up to 2.5 mm <sup>2</sup><br>2273  | 239  |
|    | PUSH WIRE® Junction Box Connectors for Solid and Stranded Conductors up to 4 mm <sup>2</sup><br>2773   | 241  |
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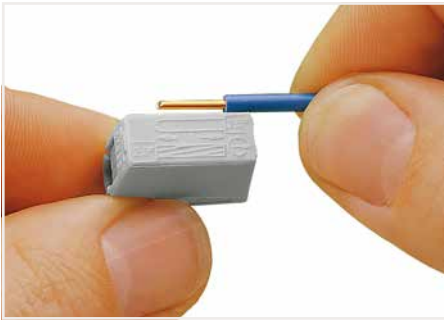


# Lighting Connectors and Service Connectors

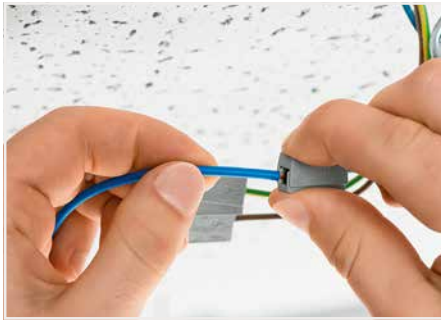
## Description and Installation

### 224 Series

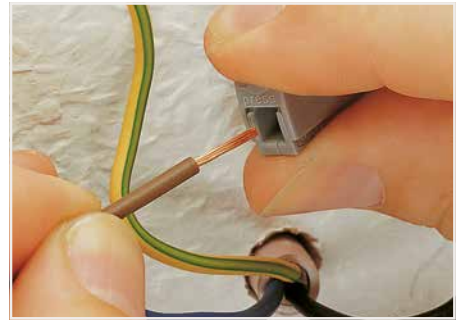
**CAGE CLAMP®**  
**PUSH WIRE®**



Strip conductor to 9 ... 11 mm (0.35 ... 0.43 inch).



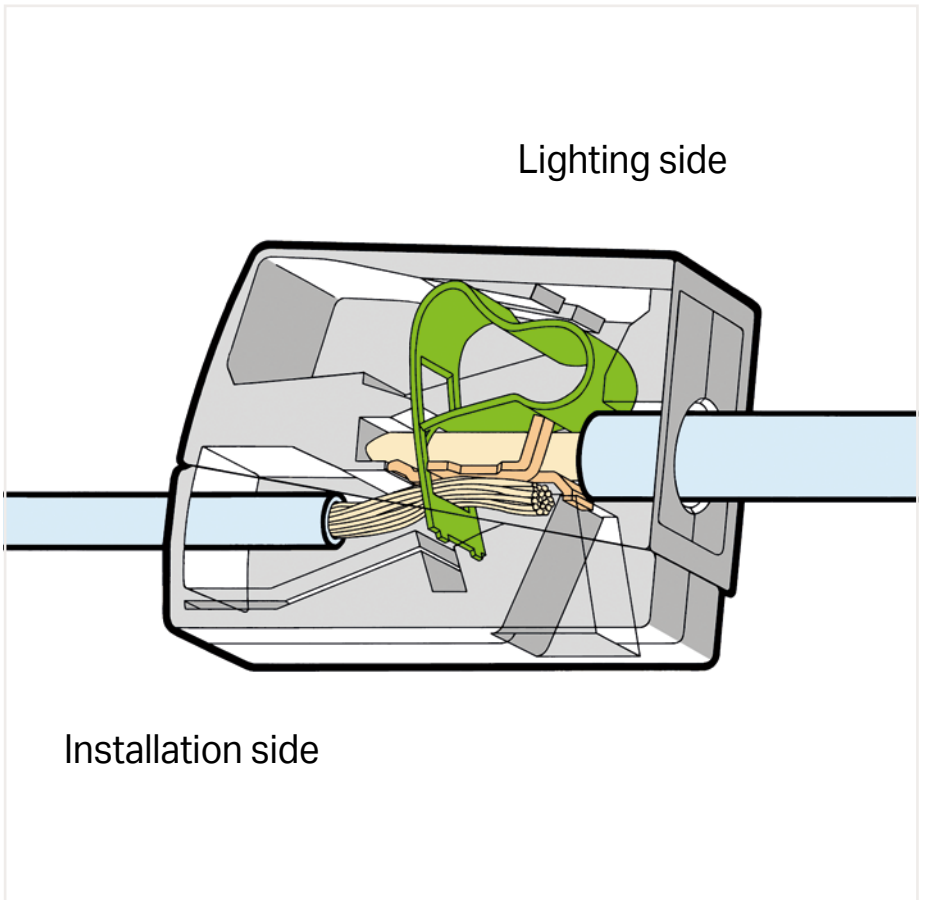
To connect: Press button fully, insert stripped conductor into square entry and release.



To remove: Press button and withdraw conductor.

Lighting side

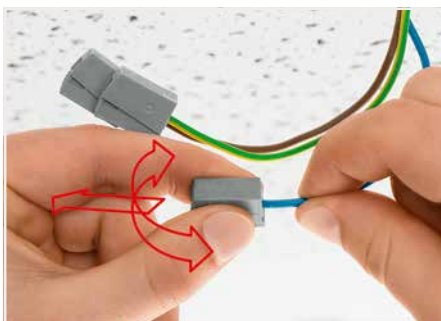
CAGE CLAMP® terminates the following copper conductors:



8



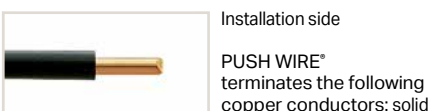
To connect: Insert stripped solid conductor into circular entry and push until it hits the backstop.



To remove: Hold conductor to be removed and twist alternately left and right while slightly pulling the connector.

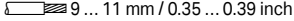


Testing via separate test ports.




# Lighting Connector ▶ Service Connector

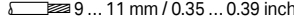
## 224 Series

| Technical Data   |                |
|--|----------------|
| Installation side  |                |
| 1 ... 2.5 mm <sup>2</sup> "s"  | 14 ... 12 AWG  |
| Lighting side  |                |
| 0.5 ... 2.5 mm <sup>2</sup> "s+f-st"   | 20 ... 16 AWG  |
| 400 V / 4 kV / 2 ①; I <sub>N</sub> 24 A  | 300 V / 20 A ② |
|  9 ... 11 mm / 0.35 ... 0.39 inch |                |



| Technical Data   |                |
|--|----------------|
| Installation side  |                |
| 2 x 1 ... 2.5 mm <sup>2</sup> "s"  | 16 ... 14 AWG  |
| Lighting side  |                |
| 0.5 ... 2.5 mm <sup>2</sup> "s+f-st"   | 20 ... 16 AWG  |
| 400 V / 4 kV / 2 ①; I <sub>N</sub> 24 A  | 300 V / 20 A ② |
|  9 ... 11 mm / 0.35 ... 0.39 inch |                |



| Technical Data   |                |
|--|----------------|
| 0.5 ... 2.5 mm <sup>2</sup> "s+f-st"   | 20 ... 16 AWG  |
| 400 V / 4 kV / 2 ①; I <sub>N</sub> 24 A  | 300 V / 20 A ② |
|  9 ... 11 mm / 0.35 ... 0.39 inch |                |



Lighting connector; standard version;  
Approved continuous operating temperature: 105 °C;  
Ambient temperature (max.): 60 °C

| Color  | Item No. | PU            |
|--------|----------|---------------|
| ○ gray | 224-101  | 1000 (10x100) |

2-conductor lighting connector; for looping through on the installation side;  
Approved continuous operating temperature: 105 °C;  
Ambient temperature (max.): 60 °C

| Color   | Item No. | PU            |
|---------|----------|---------------|
| ○ white | 224-112  | 1000 (10x100) |

Service connector;  
Approved continuous operating temperature: 105 °C

| Color  | Item No. | PU |
|--------|----------|----|
| ○ gray | 224-201  | 50 |

Lighting connector; version for increased continuous operating temperature of 120 °C;  
Ambient temperature (max.): 75 °C

| Color   | Item No. | PU            |
|---------|----------|---------------|
| ● black | 224-104  | 1000 (10x100) |

2-conductor lighting connector; for looping through on the installation side; version for increased continuous operating temperature of 120 °C;  
Ambient temperature (max.): 75 °C

| Color   | Item No. | PU            |
|---------|----------|---------------|
| ● black | 224-114  | 1000 (10x100) |

WAGO's lighting connectors ideally connect solid conductors with fine-stranded conductors. Tested and approved as isolated splicing connectors per EN 60998, WAGO's 224 Series Lighting Connectors can also be used in applications requiring a connection between solid and fine-stranded conductors. For example, 224 Series connects:

- Blinds, sliding shutters or awning motors
- Window or bathroom fans
- Circulation pumps
- Furnace control systems
- Electrical devices via permanent flexible cables

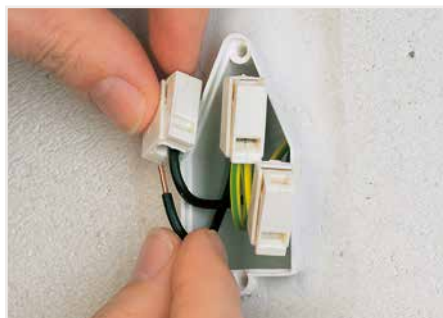
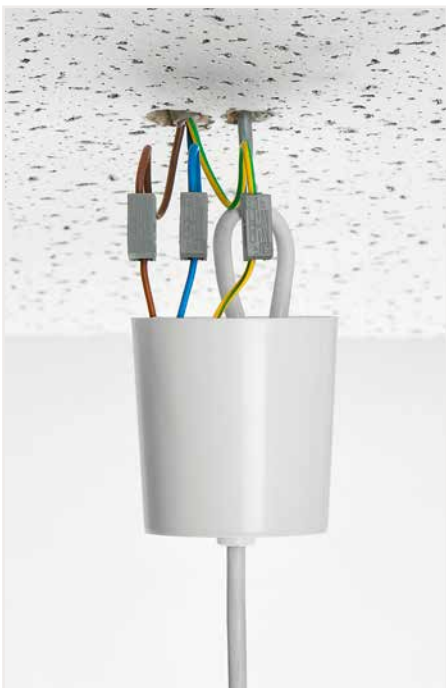
① In grounded power lines  
400 V = rated voltage  
4 kV = rated surge voltage  
2/3 = pollution degree

### 224 Series Accessories



Syringe; contains 20 ml "Alu-Plus" contact paste

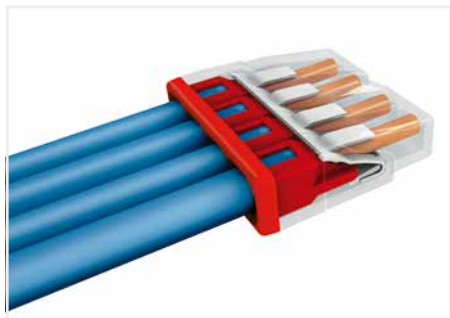
| Item No. | PU |
|----------|----|
| 249-130  | 20 |



# PUSH WIRE® Connectors for Junction Boxes

## System Description and Handling

### 2273 Series



Strip solid conductor to 11 mm/0.43 inch (see marking).



Termination: Insert the stripped solid conductor until it hits the backstop.



The transparent housing shows if conductors are fully inserted; within the colored base, a clear port shows if the conductor's strip length is correct. Conductors are correctly stripped if the clear port shows no bare conductor on the unprinted connector side. Picture shows center conductor with exceeded strip length.



Removal: Hold conductor to be removed and twist alternately left and right while pulling the connector.



Testing via test port opposite to conductor entry.

8

One single carrier can hold up to 24 clamping units in a very narrow space. Previously, this was only possible using rail-mount terminal blocks.

Additional benefits:

- Mount carrier onto DIN-35 rail or via screws – easily and quickly
- Accommodate three 2.5 mm<sup>2</sup> (12 AWG) 2273 Series Connectors in a single carrier
- Easily exchange connectors
- Large marking area for self-adhesive marking strips or for direct marking with permanent felt-tip pen



To adjust the mounting carrier, unlock the latch via operating tool (5.5 mm blade) and move the clamping slide to the required width by rotating the tool.



The mounting carrier is suitable for both connector widths.

#### PUSH WIRE® Connectors in Distribution Boxes

During distribution box retrofits or expansions, conductors often require extensions or additional clamping points. Individual PUSH WIRE® connectors (e.g., 2273 Series) are approved as interconnect components for building wiring applications per EN 60998. Application standards for building installation (e.g., Parts 510 and 520 from DIN VDE 0100) also place the following requirements on junction box connectors:

- They must be arranged so that operation, inspection, maintenance and access to the removable connectors is simplified.
- It must be possible to test them.
- Conductors connected from outside must be clearly and permanently assigned to their associated circuits.

These requirements cannot be met with PUSH WIRE® Connectors alone. However, when combined with WAGO's Mounting Carriers, the PUSH WIRE® Connectors clearly meet these requirements, making them comparable to rail-mount terminal blocks. Using PUSH WIRE® Connectors with mounting carriers in distribution boxes is accepted by testing authorities.

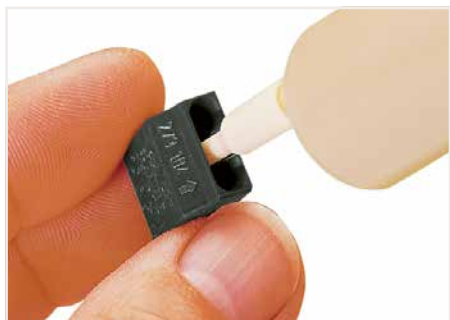


## PUSH WIRE® Junction Box Connector for Solid Conductors

### 2.5 mm<sup>2</sup> ▶ 2273 Series

| Illustration  | Description                                      | Color        | Item No. | PU   | Dimensions (W x H x D)                             | Electrical Data                            |
|---|--|--------------|----------|------|--|--|
| <b>2-wire connector</b>   |  |              |          |      |  |  |
|    | Transparent housing; white cover                 | ○ white      | 2273-202 | 1000 | 10 x 5.8 x 16.7 /<br>0.39 x 0.23 x 0.66 inch       | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 24 A |
| <b>3-wire connector</b>   |  |              |          |      |  |  |
|    | Transparent housing; orange cover                | ● orange     | 2273-203 | 1000 | 14 x 5.8 x 16.7 /<br>0.55 x 0.23 x 0.66 inch       | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 24 A |
| <b>4-wire connector</b>   |  |              |          |      |  |  |
|    | Transparent housing; red cover                   | ● red        | 2273-204 | 1000 | 18 x 5.8 x 16.7 /<br>0.71 x 0.23 x 0.66 inch       | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 24 A |
| <b>5-wire connector</b>   |  |              |          |      |  |  |
|    | Transparent housing; yellow cover                | ● yellow     | 2273-205 | 1000 | 22 x 5.8 x 16.7 /<br>0.87 x 0.23 x 0.66 inch       | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 24 A |
| <b>8-wire connector</b>   |  |              |          |      |  |  |
|   | Transparent housing; light gray cover            | ○ light gray | 2273-208 | 500  | 18 x 10.4 x 16.7 /<br>0.71 x 0.41 x 0.66 inch      | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 24 A |
| <b>Mounting Carrier</b>   |  |              |          |      |  |  |
|  | For single and double-row connectors             | ● orange     | 2273-500 | 10   | 18.5 x 21.5 x 72.5 mm /<br>0.73 x 0.85 x 2.85 inch |  |
| <b>Accessories</b>  |  |              |          |      |  |  |
|  | Syringe; contains 20 ml "Alu-Plus" contact paste |              | 249-130  | 5    |  |  |

8



Push the "Alu-Plus" syringe's nozzle into the circular entry first and then into the square conductor entry hole of the WAGO Lighting Connector.



Press the plunger down until "Alu-Plus" fills both entry holes.

**Note:** Not suitable for higher temperature applications!

Conductor range: 0.5 ... 2.5 mm<sup>2</sup> "s"; 20 ... 16 AWG;  
Strip length: 11 mm / 0.43 inch

① 450 V = rated voltage  
4 kV = rated impulse voltage  
2 = pollution degree

Continuous operating temperature (max.): 105 °C  
Ambient temperature (max.): 60 °C

# PUSH WIRE® Connectors for Junction Boxes

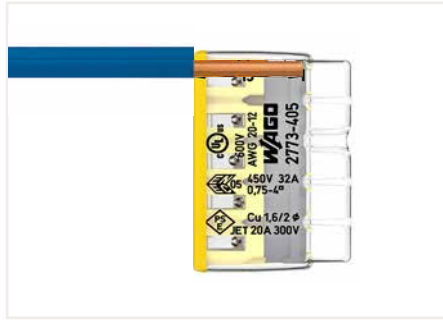
## System Description and Handling

### 2773 Series



**Benefits:**

- Convenient wiring via extremely compact design
- Push-in termination of up to eight solid and stranded conductors
- Conductor range: 0.75 ... 4 mm<sup>2</sup> "s" and 1.5 ... 4 mm<sup>2</sup> "st"
- Any combination of conductor sizes is possible
- PUSH WIRE® connection terminates solid ("s") copper conductors



Strip solid or stranded conductor to 13 mm (0.51 inch).



Termination: Insert the stripped conductor until it hits the backstop.



The transparent housing shows if conductors are fully inserted; within the colored base, a clear port shows if the conductor's strip length is correct. Conductors are correctly stripped if the clear port shows no bare conductor on the unprinted connector side. Picture shows center conductor with exceeded strip length.

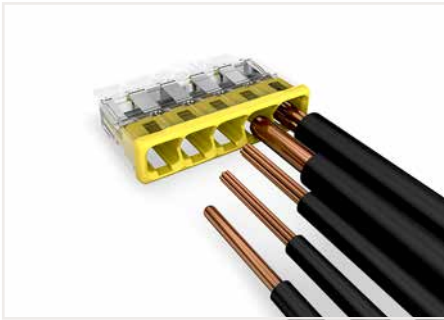


Removal: Hold solid conductor to be removed and twist alternately left and right while pulling the connector.



Testing via test port opposite to conductor entry.

8



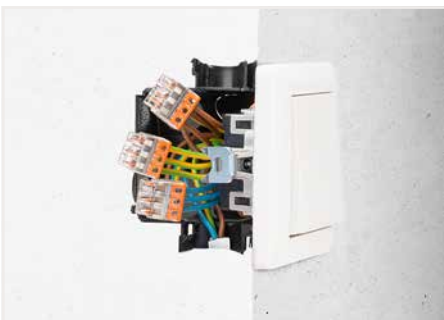
Solid and stranded conductors of different cross-sections can be securely connected.



Solid conductors are inserted into the connector by simply pushing them in.



Stranded conductors are inserted into the connector by simply pushing them in.



Thanks to their flat and compact design, these connectors are ideal for wiring in flush-mount switch boxes.









With six variants, always have the right connector.



The mounting carrier is suitable for both connector widths.

## PUSH WIRE® Connector for Junction Boxes

### 4 mm<sup>2</sup> ▶ 2773 Series

| Illustration  | Description   | Color        | Item No. | PU   | Dimensions (W x H x D)                            | Electrical Data  |
|---|---|--------------|----------|------|---|--|
| <b>2-wire connector</b>   |   |              |          |      |   |  |
|    | Transparent housing; white cover                        | ○ white      | 2773-402 | 1200 | 11.6 x 6.3 x 18.6 mm/<br>0.46 x 0.25 x 0.73 inch  | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 32 A;<br>600 V, 20 A ② |
| <b>3-wire connector</b>   |   |              |          |      |   |  |
|    | Transparent housing; orange cover                       | ● orange     | 2773-403 | 1000 | 16.4 x 6.3 x 18.6 mm/<br>0.65 x 0.25 x 0.73 inch  | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 32 A;<br>600 V, 20 A ② |
| <b>4-wire connector</b>   |   |              |          |      |   |  |
|    | Transparent housing; red cover                          | ● red        | 2773-404 | 800  | 21.2 x 6.3 x 18.6 mm/<br>0.84 x 0.25 x 0.73 inch  | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 32 A;<br>600 V, 20 A ② |
| <b>5-wire connector</b>   |   |              |          |      |   |  |
|    | Transparent housing; yellow cover                       | ● yellow     | 2773-405 | 600  | 26 x 6.3 x 18.6 mm/<br>1.02 x 0.25 x 0.73 inch    | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 32 A;<br>600 V, 20 A ② |
| <b>6-wire connector</b>   |   |              |          |      |   |  |
|   | Transparent housing; gray cover                         | ○ gray       | 2773-406 | 500  | 16.4 x 11.3 x 18.6 mm/<br>0.65 x 0.45 x 0.73 inch | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 32 A;<br>600 V, 20 A ② |
| <b>8-wire connector</b>   |   |              |          |      |   |  |
|  | Transparent housing; light gray cover                   | ○ light gray | 2773-408 | 400  | 21.2 x 11.3 x 18.6 mm/<br>0.84 x 0.45 x 0.73 inch | 450 V / 4 kV / 2 ①;<br>I <sub>N</sub> 32 A;<br>600 V, 20 A ② |
| <b>Mounting Carrier</b>   |   |              |          |      |   |  |
|  | Mounting carrier; for single- and double-row connectors | ● orange     | 2773-500 | 10   | 18 x 23 x 84 mm/<br>0.71 x 0.91 x 3.31 inch       |  |

These PUSH WIRE® Connectors for Junction Boxes are only available for the following countries: Australia, China, Japan, Norway, Sweden, South Africa, Taiwan, the United Kingdom, and the USA

Conductor range: 0.75 ... 4 mm<sup>2</sup> "s"; 20 ... 12 AWG "s";  
1.6 ... 2 mm Ø "s"; 1.5 ... 4 mm<sup>2</sup> "st"; 18 ... 12 AWG "st";  
Strip length: 13 mm / 0.51 inch

Continuous operating temperature (max.): 105 °C  
Ambient temperature (max.): 85 °C

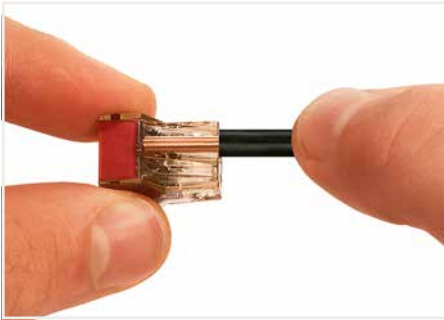
① 450 V = rated voltage  
4 kV = rated impulse voltage  
2 = pollution degree



# PUSH WIRE® Connectors for Junction Boxes

## Description and Installation

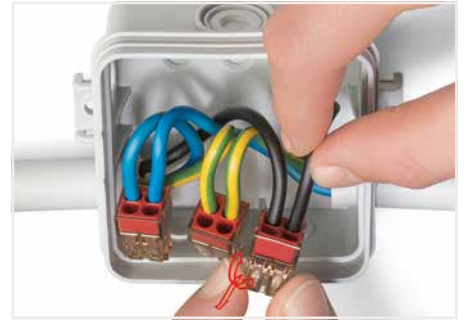
### 773 Series



Strip a solid conductor to 12 mm (0.47 inch).



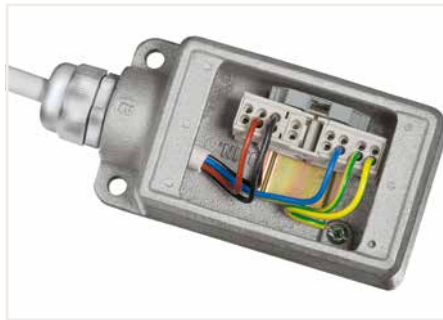
Termination: Insert stripped solid conductor until it hits the backstop.



Removal: Hold conductor to be removed and twist alternately left and right while pulling the connector.



Testing

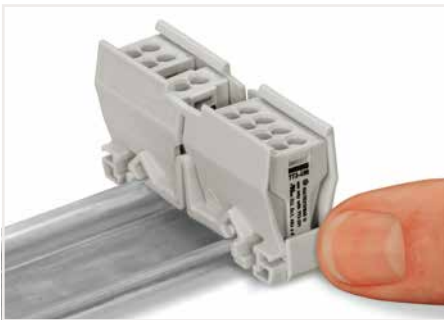


Wiring example in an Ex junction box



Wiring example in an Ex junction box

8



Use the cover as an end plate.



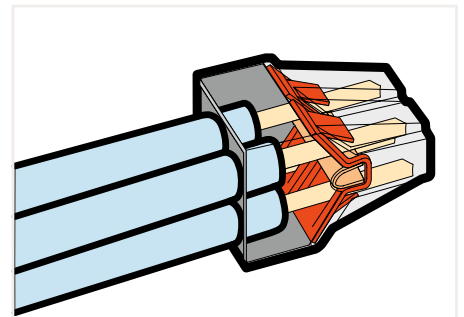
Snap the mounting carrier onto the DIN-rail.



Remove the mounting carrier from the DIN-rail.



A mounting carrier (see accessories) suits applications where the connectors must be marked and secured in position. The DIN-35 rail-mount carrier fits up to six connectors and can also be mounted on a flat surface using two screws. Using this connector carrier, a large range of wiring applications can be executed in distribution or junction boxes. To mention just a few: potential multiplication and changing from or to 6 mm<sup>2</sup> conductor size.



## PUSH WIRE® Connector for Junction Boxes

### 2.5 / 4 / 6 mm<sup>2</sup> ▶ 773 Series

| Illustration   | Description   | Color          | Item No.      | PU   | Dimensions (W x H x D)                             | Electrical Data                            |
|--|---|----------------|---------------|------|--|--|
| <b>PUSH WIRE® junction box connector; for solid and stranded conductors; max. 2.5 mm<sup>2</sup> ①</b> |   |                |               |      |  |  |
|                       | 2 conductors; transparent housing; yellow cover                           | ● yellow       | 773-102       | 1000 | 9.2 x 13.1 x 19.5 mm /<br>0.36 x 0.52 x 0.77 inch  | 400 V / 4 kV / 2 ④;<br>I <sub>N</sub> 24 A |
|  | 2 conductors; light gray housing; light gray cover                        | ○ light gray ⑤ | 773-492 ⑤ ⑥ ⑦ | 1000 |  |  |
|                       | 4 conductors; transparent housing; orange cover                           | ● orange       | 773-104       | 1000 | 13 x 13.1 x 19.5 mm /<br>0.51 x 0.52 x 0.79 inch   | 400 V / 4 kV / 2 ④;<br>I <sub>N</sub> 24 A |
|  | 4 conductors; black housing; black cover                                  | ● black        | 773-504       | 1000 |  |  |
|  | 4 conductors; light gray housing; light gray cover                        | ○ light gray ⑤ | 773-494 ⑤ ⑥ ⑦ | 1000 |  |  |
|                       | 6 conductors; transparent housing; violet cover                           | ● violet       | 773-106       | 500  | 18.8 x 13.1 x 19.5 mm /<br>0.74 x 0.52 x 0.77 inch | 400 V / 4 kV / 2 ④;<br>I <sub>N</sub> 32 A |
|  | 6 conductors; light gray housing; light gray cover                        | ○ light gray ⑤ | 773-496 ⑤ ⑥ ⑦ | 500  |  |  |
|                       | 8 conductors; transparent housing; black cover                            | ● black        | 773-108       | 500  | 24 x 13.1 x 19.5 mm /<br>0.95 x 0.52 x 0.77 inch   | 400 V / 4 kV / 2 ④;<br>I <sub>N</sub> 24 A |
|  | 8 conductors; light gray housing; light gray cover                        | ○ light gray ⑤ | 773-498 ⑤ ⑥ ⑦ | 500  |  |  |
| <b>PUSH WIRE® junction box connector; for solid conductors; max. 4 mm<sup>2</sup> ②</b>                |   |                |               |      |  |  |
|                       | 2 conductors; transparent brown housing; white cover                      | ○ white        | 773-602       | 1000 | 9.2 x 13.1 x 19.5 mm /<br>0.36 x 0.52 x 0.77 inch  | 400 V / 4 kV / 2 ④;<br>I <sub>N</sub> 32 A |
|  | 4 conductors; transparent brown housing; red cover                        | ● red          | 773-604       | 1000 | 13 x 13.1 x 19.5 mm /<br>0.51 x 0.52 x 0.79 inch   |  |
|  | 6 conductors; transparent brown housing; brown cover                      | ● brown        | 773-606       | 500  | 18.8 x 13.1 x 19.5 mm /<br>0.74 x 0.52 x 0.77 inch |  |
| <b>PUSH WIRE® junction box connector; for solid and stranded conductors; max. 6 mm<sup>2</sup> ③</b>   |   |                |               |      |  |  |
|                     | 3 conductors; transparent housing; red cover                              | ● red          | 773-173       | 500  | 25.6 x 14.2 x 20.1 mm /<br>1 x 0.56 x 0.79 inch    | 400 V / 4 kV / 2 ④;<br>I <sub>N</sub> 41 A |
|  | 3 conductors; light gray housing; light gray cover                        | ○ light gray ⑤ | 773-493 ⑤ ⑥ ⑦ | 500  |  |  |
| <b>Mounting Carrier</b>  |   |                |               |      |  |  |
|                     | Mounting carrier; for all PUSH WIRE® junction box connectors (773 Series) | ● orange       | 773-332       | 50   | 18 x 26 x 61 mm /<br>0.71 x 1.02 x 2.4 inch        |  |
|                     | Mounting carrier; for Ex PUSH WIRE® junction box connectors               | ○ light gray ⑤ | 773-331       | 50   | 18 x 26 x 61 mm /<br>0.71 x 1.02 x 2.4 inch        |  |
| <b>Accessories</b>   |   |                |               |      |  |  |
|                     | Syringe; contains 20 ml "Alu-Plus" contact paste                          |                | 249-130       | 20   |  |  |

① Conductor range: 0.75 ... 2.5 mm<sup>2</sup> "s"; 18 ... 12 AWG "s";  
1.5 ... 2.5 mm<sup>2</sup> "st"; 16 ... 12 AWG "st";  
Strip length: 12 mm / 0.47 inch

② Conductor range: 1.5 ... 4 mm<sup>2</sup> "s";  
Strip length: 12 mm / 0.47 inch

③ Conductor range: 2.5 ... 6 mm<sup>2</sup> "s+st"; 14 ... 10 AWG "s+st";  
Strip length: 12 ... 13 mm / 0.47 ... 0.51 inch

④ 400 V = rated voltage  
4 kV = rated impulse voltage  
2 = pollution degree

⑤ Suitable for Ex e II applications

⑥ 275 V at a distance < 10 mm to parts of other potentials

⑦ To be used only in conjunction with a mounting carrier (773-331)  
!

Approval data,  
visit [www.wago.com](http://www.wago.com)

Continuous operating temperature (max.): 105 °C  
Ambient temperature (max.): 60 °C

## Splicing Connector with Levers; Green Range

### 221 Series

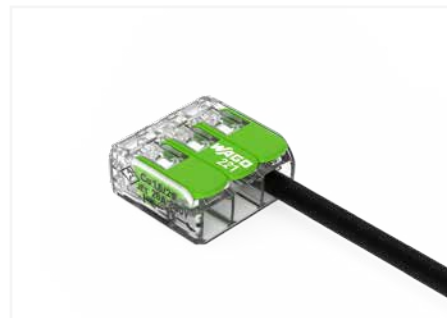
#### Description and Installation



Strip conductor to 11 mm (0.43 inch).



Termination: Lift the lever to open the clamping unit and insert a stripped conductor.



Then, lower the lever to close the clamp.



Testing via test slots



8



Wiring in a distribution box

# Splicing Connector with Levers; Green Range

## 4 mm<sup>2</sup>; 221 Series

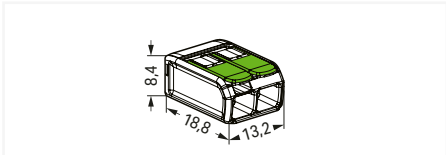
| Technical Data                    |                          |
|-----------------------------------|--------------------------|
| 0.2 ... 4 mm <sup>2</sup> "s+str" | 24 ... 12 AWG            |
| 0.14 ... 4 mm <sup>2</sup> "f-st" | 600 V, 20 A <sup>Ⓢ</sup> |
| 450 V / 4 kV / 2 <sup>Ⓢ</sup>     | 600 V, 20 A <sup>Ⓢ</sup> |
| I <sub>N</sub> 32 A               |                          |
| 11 mm / 0.43 inch                 |                          |

| Technical Data                    |                          |
|-----------------------------------|--------------------------|
| 0.2 ... 4 mm <sup>2</sup> "s+str" | 24 ... 12 AWG            |
| 0.14 ... 4 mm <sup>2</sup> "f-st" | 600 V, 20 A <sup>Ⓢ</sup> |
| 450 V / 4 kV / 2 <sup>Ⓢ</sup>     | 600 V, 20 A <sup>Ⓢ</sup> |
| I <sub>N</sub> 32 A               |                          |
| 11 mm / 0.43 inch                 |                          |

- 1 450 V = rated voltage  
4 kV = rated impulse voltage  
2 = pollution degree  
(see Section 15)
- Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



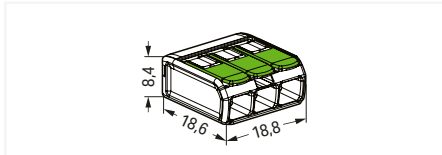
Dimensions in mm



Green Range Splicing Connector with Levers; for all conductor types; max. 4 mm<sup>2</sup>; 2 conductors; transparent housing; ambient temperature (max.): 85 °C (T85); 4 mm<sup>2</sup>; transparent

| Item No. | PU         |
|----------|------------|
| 221-422  | 1000 (100) |

Dimensions in mm



Green Range Splicing Connector with Levers; for all conductor types; max. 4 mm<sup>2</sup>; 3 conductors; transparent housing; ambient temperature (max.): 85 °C (T85); 4 mm<sup>2</sup>; transparent

| Item No. | PU       |
|----------|----------|
| 221-423  | 500 (50) |

### Your Benefits with Green Range:

- Plastics made partially from post-consumer recycled material (e.g., recycled PET bottles) and bio-based industrial and household waste
- Reduced consumption of fossil resources



### Splicing Connectors

They connect up to five stripped, fine-stranded conductors from 0.14 to 4 mm<sup>2</sup>, as well as solid or stranded conductors from 0.2 to 4 mm<sup>2</sup> – without tools!

### How they work:

Pull up a green lever to open the clamping unit. Then insert the conductor and push the lever back down, flush with the connector housing.

### Safety:

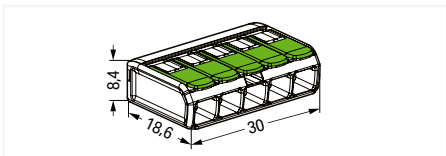
The lever's specially designed rest position reliably prevents accidental unclamping of a connected conductor. Application safety, for any type of conductor (solid, stranded, fine-stranded), is confirmed by approvals like ENEC or UL.

ENEC is the European mark for electrical products that demonstrates compliance with European safety standards. The ENEC mark is subjected to the same EN standards as the VDE mark.

While the VDE mark is only permitted in Germany, the ENEC mark is accepted in more than 20 European countries.



Dimensions in mm



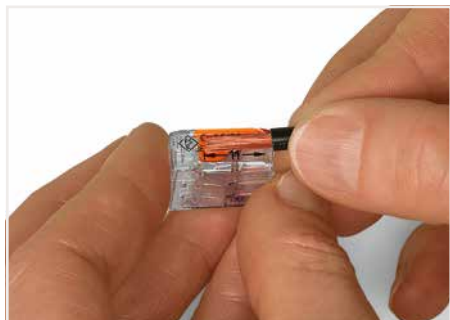
Green Range Splicing Connector with Levers; for all conductor types; max. 4 mm<sup>2</sup>; 5 conductors; transparent housing; ambient temperature (max.): 85 °C (T85); 4 mm<sup>2</sup>; transparent

| Item No. | PU       |
|----------|----------|
| 221-425  | 250 (25) |

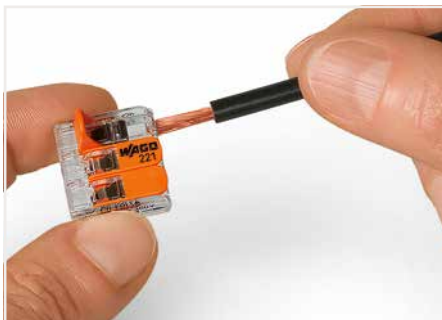


# Splicing Connectors for All Conductor Types Description and Installation 221 Series

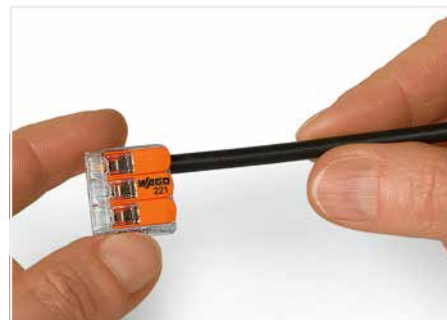
CAGE CLAMP®



Stripping a conductor.



Termination: Lift the lever to open the clamping unit and insert a stripped conductor.



Then, lower the lever to close the clamp.



Wiring fine-stranded conductors in a junction box.



8



Custom low-voltage lighting system



Wiring fine-stranded conductors in a junction box.



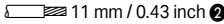
Lighting distribution in a ceiling canopy




Pendant light connection in a suspended ceiling

# Compact Splicing Connector for All Conductor Types

## 4 mm<sup>2</sup> / 6 mm<sup>2</sup> ▶ 221 Series

| Technical Data  |               |
|---|---------------|
| 0.2 ... 4 mm <sup>2</sup> "s+str"   | 24 ... 12 AWG |
| 0.14 ... 4 mm <sup>2</sup> "f-st"   |               |
| 450 V / 4 kV / 2 ①; I <sub>N</sub> 32 A   |               |
|  11 mm / 0.43 inch ② |               |

| Technical Data  |               |
|---|---------------|
| 0.5 ... 6 mm <sup>2</sup>   | 20 ... 10 AWG |
| 450 V / 4 kV / 2 ①; I <sub>N</sub> 41 A   |               |
|  12 ... 14 mm / 0.47 ... 0.55 inch ② |               |



Splicing connector for all conductor types; max. 4 mm<sup>2</sup>; with levers;  
 Continuous operating temperature (max.): 105 °C;  
 Ambient temperature (max.): 85 °C

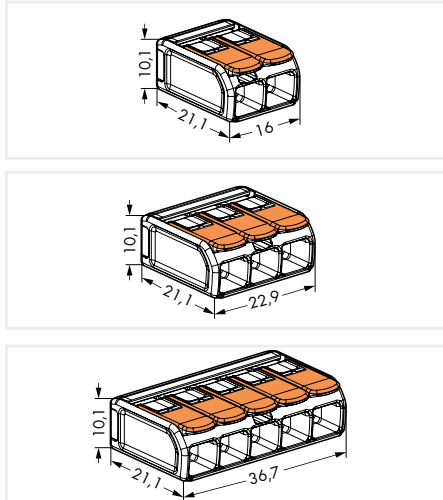
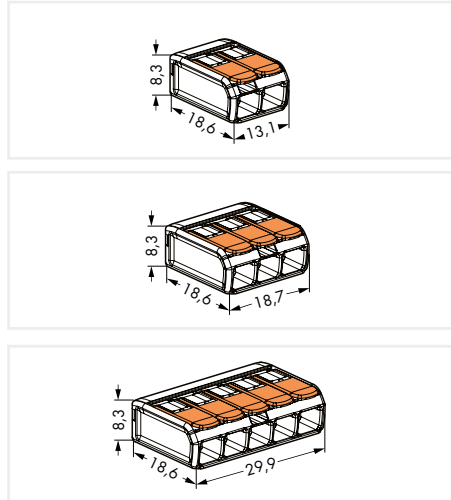
|              | Item No. | PU            |
|--------------|----------|---------------|
| 2 conductors | 221-412  | 1000 (10x100) |
| 3 conductors | 221-413  | 500 (10x50)   |
| 5 conductors | 221-415  | 250 (10x25)   |

Dimensions in mm

Splicing connector for all conductor types; max. 6 mm<sup>2</sup>; with levers;  
 Continuous operating temperature (max.): 105 °C;  
 Ambient temperature (max.): 85 °C




|              | Item No. | PU          |
|--------------|----------|-------------|
| 2 conductors | 221-612  | 500 (10x50) |
| 3 conductors | 221-613  | 300 (10x30) |
| 5 conductors | 221-615  | 150 (10x15) |

Dimensions in mm






Accessories; item-specific

Mounting carrier; for 2-, 3- and 5-wire connectors; carrier width: 17.5 mm


|   |                  |                 |    |
|---|------------------|-----------------|----|
|  | orange           | 221-500         | 50 |
|  | dark gray/yellow | 221-500/000-053 | 50 |
|  | blue             | 221-500/000-006 | 50 |

Accessories; item-specific


Mounting carrier; for 2-, 3- and 5-wire connectors; carrier width: 19.3 mm

|   |                  |                 |    |
|---|------------------|-----------------|----|
|  | orange           | 221-510         | 50 |
|  | dark gray/yellow | 221-510/000-053 | 50 |
|  | blue             | 221-510/000-006 | 50 |


Angled DIN-rail adapter; in combination with a mounting carrier for DIN-35 rail mounting; Carrier width: 18.5 mm

|   |      |         |    |
|---|------|---------|----|
|  | gray | 222-510 | 50 |
|---|------|---------|----|


Angled DIN-rail adapter; in combination with a mounting carrier for DIN-35 rail mounting; Carrier width: 18.5 mm

|   |      |         |    |
|---|------|---------|----|
|  | gray | 222-510 | 50 |
|---|------|---------|----|


Strain relief plate; for mounting carrier (221-500 and 222-505); 4 mm thick

|   |        |         |    |
|---|--------|---------|----|
|  | orange | 222-505 | 50 |
|---|--------|---------|----|


Strain relief plate; for mounting carrier (221-500 and 222-505); 4 mm thick

|   |        |         |    |
|---|--------|---------|----|
|  | orange | 222-505 | 50 |
|---|--------|---------|----|

Self-adhesive marking strip; plain; 5 mm high; 48 self-adhesive strips per card

|   |       |         |   |
|---|-------|---------|---|
|  | white | 210-334 | 1 |
|---|-------|---------|---|

Self-adhesive marking strip; plain; 5 mm high; 48 self-adhesive strips per card

|   |       |         |   |
|---|-------|---------|---|
|  | white | 210-334 | 1 |
|---|-------|---------|---|

**Splicing Connectors; 4 mm<sup>2</sup>**  
 " They connect up to five stripped, fine-stranded conductors from 0.14 to 4 mm<sup>2</sup>, as well as solid or stranded conductors from 0.2 to 4 mm<sup>2</sup> – without tools!

**Splicing Connectors; 6 mm<sup>2</sup>**  
 " They connect up to five stripped conductors from 0.5 to 6 mm<sup>2</sup> – without tools!

**How they work:**  
 " Pull up an orange lever to open the clamping unit. Then insert the conductor and push the lever back down, flush with the connector housing.

**Safety:**  
 The lever's specially designed rest position reliably prevents accidental unclamping of a connected conductor. Application safety, for any type of conductor (solid, stranded, fine-stranded), is confirmed by approvals like ENEC or UL.

ENEC is the European mark for electrical products that demonstrates compliance with European safety standards. The ENEC mark is subjected to the same EN standards as the VDE mark. While the VDE mark is only permitted in Germany, the ENEC mark is accepted in more than 20 European countries.

① In grounded power lines  
 " 450 V = rated voltage  
 " 4 kV = rated surge voltage  
 " 2 = pollution degree

② Strip length, see packaging or instruction leaflet



Strain relief via cable ties on the mounting carrier (transverse to the connectors' wiring direction); clamping units labeled via marking strips (210-334)



Vertical mounting with strain relief plate on DIN-35 rail



Horizontal mounting on DIN-35 rail using an angled DIN-rail adapter



# Mounting Carrier for Single Connectors

## Handling

### 221 Series



Inserting a connector into the mounting carrier.



Removing a connector from the mounting carrier.



Conductor termination



Use a cable tie to secure the conductors to the strain relief plate.



Labeling the mounting carrier.



Testing a connector mounted on the carrier via test slot.

8



The strain relief plate can be removed.



Horizontal screw mounting



Vertical screw mounting



Horizontal mounting via snap-in foot



Vertical mounting via snap-in foot



Connecting a light to the mains.

# Mounting Carrier for Single Connectors 221 Series

for 2-wire connectors, up to 4 mm<sup>2</sup>



For screw mounting; dimensions from the surface (mm)  
W x H x D: 18.1 x 16.9 x 52.8

| Color   | Item No.        | PU        |
|---------|-----------------|-----------|
| ○ white | 221-502         | 50 (5x10) |
| ● black | 221-502/000-004 | 50 (5x10) |

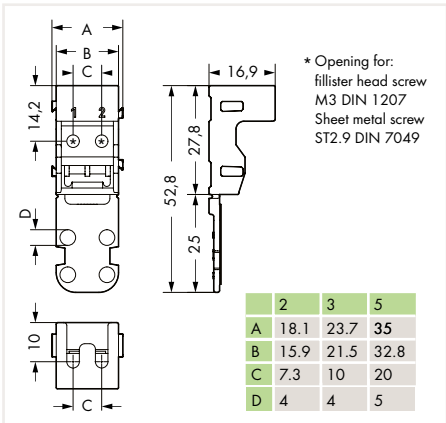
With snap-in mounting foot for horizontal mounting;  
dimensions from the surface (mm) W x H x D:  
18.1 x 16.9 (+4.5 snap-in mounting foot)x 52.8

| Color   | Item No.        | PU        |
|---------|-----------------|-----------|
| ○ white | 221-512         | 50 (5x10) |
| ● black | 221-512/000-004 | 50 (5x10) |

With snap-in mounting foot for vertical mounting; dimensions from the surface (mm) W x H x D:  
18.1 x 52.8 (+4.5 snap-in mounting foot)x 16.9

| Color   | Item No.        | PU        |
|---------|-----------------|-----------|
| ○ white | 221-522         | 50 (5x10) |
| ● black | 221-522/000-004 | 50 (5x10) |

Dimensions in mm



for 3-wire connectors, up to 4 mm<sup>2</sup>



For screw mounting; dimensions from the surface (mm)  
W x H x D: 23.7 x 16.9 x 52.8

| Color   | Item No.        | PU        |
|---------|-----------------|-----------|
| ○ white | 221-503         | 50 (5x10) |
| ● black | 221-503/000-004 | 50 (5x10) |

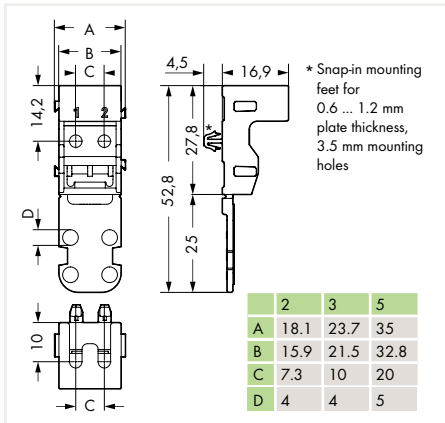
With snap-in mounting foot for horizontal mounting;  
dimensions from the surface (mm) W x H x D:  
23.7 x 16.9 (+4.5 snap-in mounting foot)x 52.8

| Color   | Item No.        | PU        |
|---------|-----------------|-----------|
| ○ white | 221-513         | 50 (5x10) |
| ● black | 221-513/000-004 | 50 (5x10) |

With snap-in mounting foot for vertical mounting; dimensions from the surface (mm) W x H x D:  
23.7 x 52.8 (+4.5 snap-in mounting foot)x 16.9

| Color   | Item No.        | PU        |
|---------|-----------------|-----------|
| ○ white | 221-523         | 50 (5x10) |
| ● black | 221-523/000-004 | 50 (5x10) |

Dimensions in mm



for 5-wire connectors, up to 4 mm<sup>2</sup>



For screw mounting; dimensions from the surface (mm)  
W x H x D: 35 x 16.9 x 52.8

| Color   | Item No.        | PU        |
|---------|-----------------|-----------|
| ○ white | 221-505         | 50 (5x10) |
| ● black | 221-505/000-004 | 50 (5x10) |

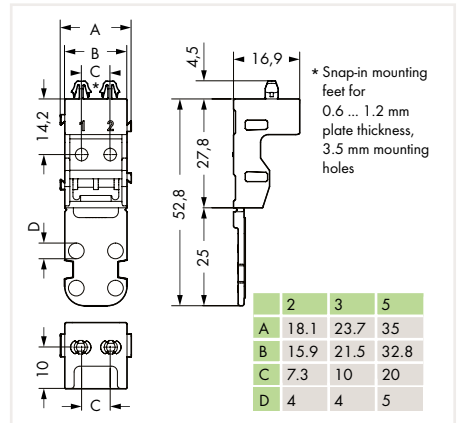
With snap-in mounting foot for horizontal mounting;  
dimensions from the surface (mm) W x H x D:  
35 x 16.9 (+4.5 snap-in mounting foot)x 52.8

| Color   | Item No.        | PU        |
|---------|-----------------|-----------|
| ○ white | 221-515         | 50 (5x10) |
| ● black | 221-515/000-004 | 50 (5x10) |

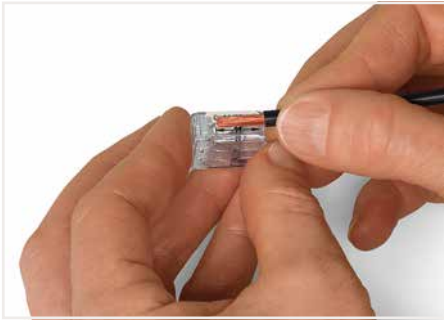
With snap-in mounting foot for vertical mounting; dimensions from the surface (mm) W x H x D:  
35 x 52.8 (+4.5 snap-in mounting foot)x 16.9

| Color   | Item No.        | PU        |
|---------|-----------------|-----------|
| ○ white | 221-525         | 50 (5x10) |
| ● black | 221-525/000-004 | 50 (5x10) |

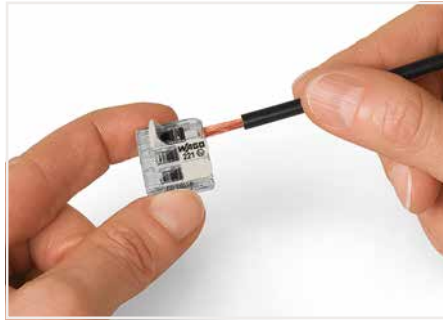
Dimensions in mm



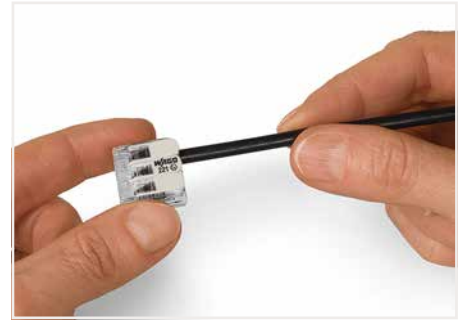
# Splicing Connector for All Conductor Types and Mounting Carrier for Ex Splicing Connectors ▶ for Ex eb Applications ▶ Description and Handling 221 Series



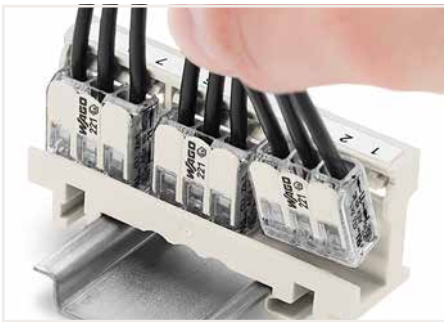
Strip conductor to 11 mm (0.43 inch).



Termination: Lift the lever to open the clamping unit and insert a stripped conductor.



Then, lower the lever to close the clamp.



Inserting a connector into the mounting carrier.

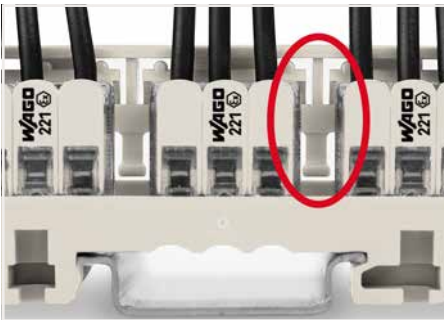


Removing a connector from the mounting carrier.



Removing a conductor.

8



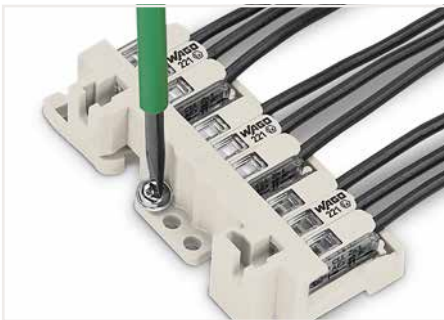
Mounting type (440 V)  
A spacer integrated into the adapter can be seen between two connectors.



Mounting type (440 V)  
Vertical mounting on DIN-35 rail



Mounting type (275 V)  
A spacer integrated in the adapter **cannot** be seen between two connectors; the connector housings are close together.



Mounting type (440 V)  
Horizontal screw mounting on a flat surface



Mounting type (440 V)  
Mounting the carrier via non-conductive screws.



Mounting type (275 V)  
Mounting the carrier using conductive screws.

# Splicing Connector for All Conductor Types and Mounting Carrier ▶ for Ex eb Applications 4 mm<sup>2</sup> / 6 mm<sup>2</sup> ▶ 221 Series

| Technical Data                                  |  |
|---|--|
| IEC / EN 60079-7                                | UL 60079-7                                     |
| Ⓔ<br>IECEX<br>Ex eb IIC Gb                      | <br>Cl.I, Zn. 1, AEx eb IIC<br>CNR Ex eb IIC U |
| 0.2 ... 4 mm <sup>2</sup> "s+str"               | 24 ... 12 AWG "s+st"                           |
| 0.14 ... 4 mm <sup>2</sup> "f-st"               | 24 ... 12 AWG "f-st"                           |
| 440 V (275 V) ①                                 | 440 V (275 V), 20 A  ①                         |
| I <sub>N</sub> 24.5 A ① / I <sub>N</sub> 32 A ② |  |
| Operating temperature: -55 ... +105 °C          |  |
| 11 mm / 0.43 inch                               |  |

| Technical Data                         |  |
|--|--|
| IEC / EN 60079-7                       | UL 60079-7                                     |
| Ⓔ<br>IECEX<br>Ex eb IIC Gb             | <br>Cl.I, Zn. 1, AEx eb IIC<br>CNR Ex eb IIC U |
| 0.5 ... 6 mm <sup>2</sup>              | 20 ... 10 AWG                                  |
| 440 V (275 V) ①                        | 440 V (275 V), 20 A  ①                         |
| I <sub>N</sub> 37 A                    |  |
| Operating temperature: -55 ... +105 °C |  |
| 12 ... 14 mm / 0.47 ... 0.55 inch      |  |



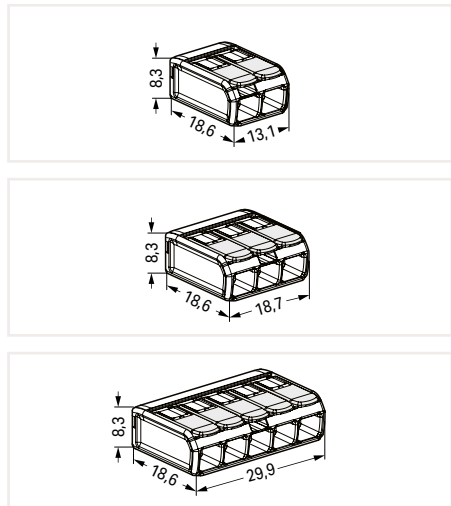
Splicing connector for all conductor types; for Ex eb applications; max. 4 mm<sup>2</sup>; with levers; transparent housing; light gray lever; Operating temperature (max.): 105 °C

|              | Item No.    | PU         |
|--------------|-------------|------------|
| 2 conductors | 221-482 ② ① | 1000 (100) |
| 3 conductors | 221-483 ② ② | 500 (50)   |
| 5 conductors | 221-485 ② ② | 250 (25)   |

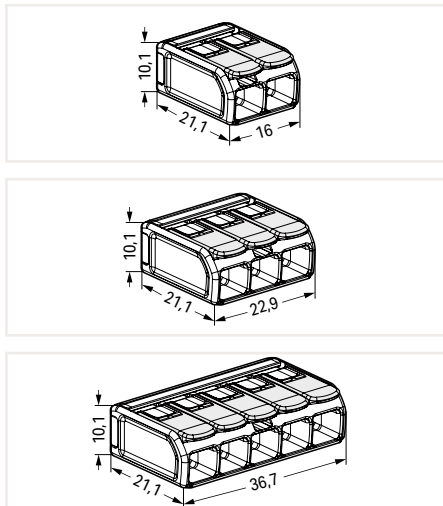
Splicing connector for all conductor types; for Ex eb applications; max. 6 mm<sup>2</sup>; with levers; transparent housing; light gray lever; Operating temperature (max.): 105 °C

|              | Item No.  | PU       |
|--------------|-----------|----------|
| 2 conductors | 221-682 ② | 500 (50) |
| 3 conductors | 221-683 ② | 300 (30) |
| 5 conductors | 221-685 ② | 150 (15) |

Dimensions in mm



Dimensions in mm



**Accessories; item-specific**  
Mounting carrier; for 2-, 3- and 5-wire Ex splicing connectors (4 mm<sup>2</sup>); 17.5 mm wide

|            |                   |         |
|------------|-------------------|---------|
| light gray | 221-501           | 50 (10) |
| blue       | 221-500/000-006 ③ | 50 (10) |

Self-adhesive marking strip; plain; 5 mm high; 48 self-adhesive strips per card

|       |         |   |
|-------|---------|---|
| white | 210-334 | 1 |
|-------|---------|---|

**Accessories; item-specific**  
Mounting carrier; for 2-, 3- and 5-wire Ex splicing connectors (6 mm<sup>2</sup>); 19.3 mm wide

|            |                   |         |
|------------|-------------------|---------|
| light gray | 221-511           | 50 (10) |
| blue       | 221-510/000-006 ③ | 50 (10) |

Self-adhesive marking strip; plain; 5 mm high; 48 self-adhesive strips per card

|       |         |   |
|-------|---------|---|
| white | 210-334 | 1 |
|-------|---------|---|

① The permissible operating voltage of the connector with carrier (440 V or 275 V) depends on the mounting type.

The mounting types for both 440 V and 275 V are shown on the "Description and Installation" page. If a mounting type for 275 V is used, this is the permissible working voltage.

② Only approved in conjunction with a mounting carrier (221-511); additional carriers are possible; see certificate (UL).

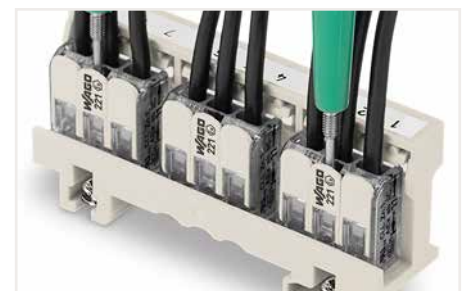
The connectors must be installed in an enclosure meeting the requirements of a recognized protection type per EN 60079-0, Section 1 or EN 60079-31. When installing the connectors in an enclosure of protection type "eb" (increased safety) per EN 60079-7, the clearances and creepage distances of Table 2 for this standard must be observed (for the use of accessories see point 1).

The connectors can be used both in Group II and Group I, as the standard requirements are identical in this case.

The use of these components requires a new assessment by an authorized certification agency.

③ Carriers with a blue insulated housing are suitable for Ex i applications. Both clearances and creepage distances for the protection type "intrinsic safety Ex i" must be observed.

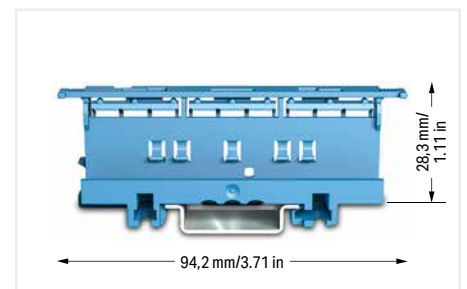
Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



Easily test inserted connectors in the carrier – however they are mounted.



Wiring example in an Ex e junction box  
Labeling is performed via marking strips (210-334) and pen or continuous labels (210-834), which is printed via WAGO Thermal Transfer Smart Printer (258-5000).



Carriers with a blue insulated housing are suitable for Ex i applications. Both clearances and creepage distances for the protection type "intrinsic safety Ex i" must be observed.



# Inline Splicing Connectors

## Handling

### 221 Series



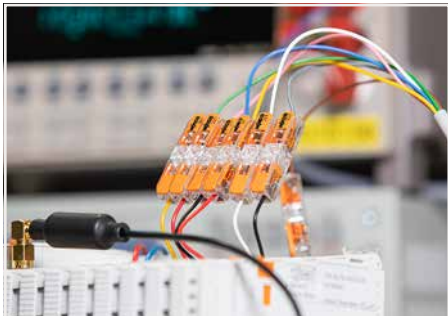
Push up the lever to open the clamping unit and insert the conductor.



Push the lever back down.

**Your Benefits:**

- Inline connection of solid, stranded and fine-stranded conductors from 0.2 to 4 mm<sup>2</sup>
- Slim design saves space in tight areas
- Tool-free connection and disconnection thanks to convenient lever technology
- Use a mounting carrier for fixed and multi-pole wiring



Perfect for test setups

8



Simple extension of lines



Lighting connection in suspended ceilings



Multi-pole, fixed lighting fixture wiring

# Inline Splicing Connectors 221 Series

| Technical Data                   |                      |
|----------------------------------|----------------------|
| 0.2 ... 4 mm <sup>2</sup> "s"    | 20 ... 14 AWG "s"    |
| 0.2 ... 2.5 mm <sup>2</sup> "st" | 18 ... 14 AWG "st"   |
| 0.2 ... 4 mm <sup>2</sup> "f-st" | 18 ... 14 AWG "f-st" |
| 450 V / 4 kV / 2 ①               | 600 V, 20 A ②        |
| I <sub>N</sub> 32 A              |                      |
| 11 mm / 0.43 inch                |                      |

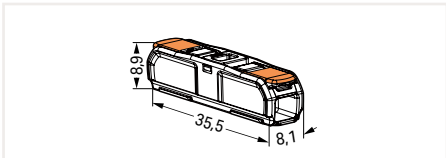
| Technical Data                    |                      |
|-----------------------------------|----------------------|
| 0.2 ... 4 mm <sup>2</sup> "s"     | 20 ... 12 AWG "s"    |
| 0.2 ... 2.5 mm <sup>2</sup> "st"  | 18 ... 12 AWG "st"   |
| 0.34 ... 4 mm <sup>2</sup> "f-st" | 18 ... 12 AWG "f-st" |
| 450 V / 4 kV / 2 ①                | 600 V, 20 A ②        |
| I <sub>N</sub> 32 A               |                      |
| 11 mm / 0.43 inch                 |                      |

① 450 V = rated voltage  
4 kV = rated impulse voltage  
2 = pollution degree (see Section 14)

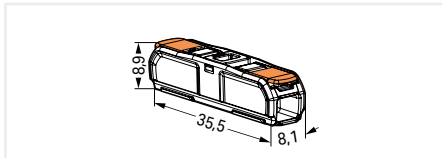
Approvals and corresponding ratings, visit [www.wago.com](http://www.wago.com)



Dimensions in mm



Dimensions in mm



Inline splicing connector with levers; transparent housing; transparent cover

| Item No. | PU       |
|----------|----------|
| 221-2411 | 600 (60) |

Inline splicing connector with levers; transparent housing; white cover

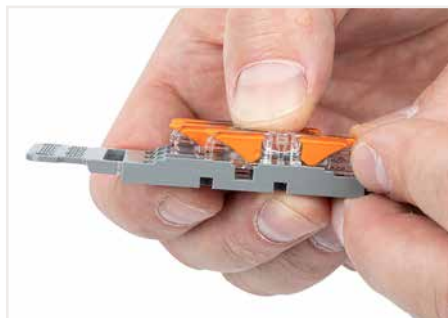
| Item No. | PU       |
|----------|----------|
| 221-2401 | 600 (60) |



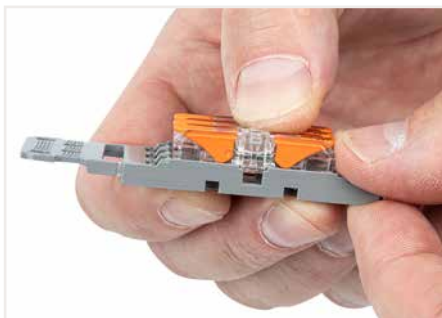
# Mounting Carrier ▶ for Inline Splicing Connectors

## Handling

### 221 Series



Place the inline splicing connector on the carrier in front of the mounting position.



Push the connector to the center position until it snaps into place.

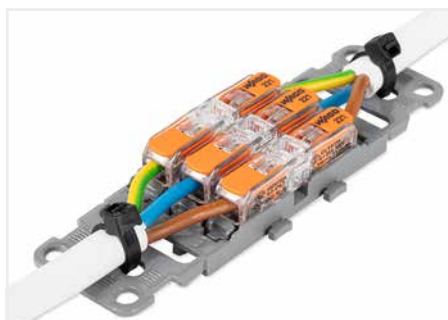


Wiring can also be performed in a fixed position.



Various combinations of 1- to 5-connector mounting carriers are possible via side-by-side latching mechanism.

8



3-pole mounting carrier with strain relief

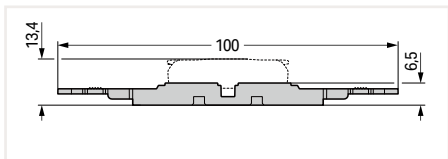


Mounting carrier without strain relief – snapped onto DIN-rail

# Mounting Carrier ▶ for Inline Splicing Connectors 221 Series



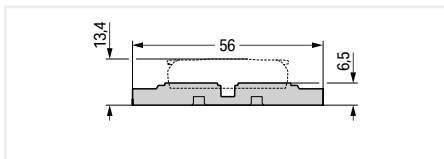
Dimensions in mm



Mounting carrier with strain relief; for inline splicing connector with levers; for screw mounting; gray

|                | Item No. | PU     |
|----------------|----------|--------|
| ○ 1 connector  | 221-2501 | 25 (5) |
| ○ 2 connectors | 221-2502 | 25 (5) |
| ○ 3 connectors | 221-2503 | 25 (5) |
| ○ 4 connectors | 221-2504 | 25 (5) |
| ○ 5 connectors | 221-2505 | 25 (5) |

Dimensions in mm



Mounting carrier; for inline splicing connector with levers; for screw mounting; gray

|                | Item No. | PU     |
|----------------|----------|--------|
| ○ 1 connector  | 221-2521 | 25 (5) |
| ○ 2 connectors | 221-2522 | 25 (5) |
| ○ 3 connectors | 221-2523 | 25 (5) |
| ○ 4 connectors | 221-2524 | 25 (5) |
| ○ 5 connectors | 221-2525 | 25 (5) |

### Accessories; 221 Series

Appropriate marking systems:  
WMB/WMB Inline/Marking strips

Mounting foot; for DIN-15 rail; can be screwed to terminal blocks with mounting flange; 6.4 mm wide

|      |          |    |
|------|----------|----|
| gray | 209-1116 | 25 |
|------|----------|----|

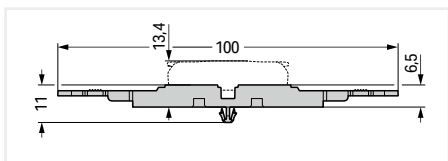


Marking strip; 5 mm high; 48 self-adhesive strips per card; plain

|       |         |     |
|-------|---------|-----|
| white | 210-334 | 100 |
|-------|---------|-----|



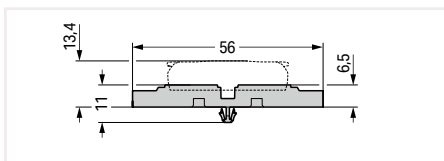
Dimensions in mm



Mounting carrier with strain relief; for inline splicing connector with levers; with snap-in mounting foot; gray

|                | Item No. | PU     |
|----------------|----------|--------|
| ○ 1 connector  | 221-2511 | 25 (5) |
| ○ 2 connectors | 221-2512 | 25 (5) |
| ○ 3 connectors | 221-2513 | 25 (5) |
| ○ 4 connectors | 221-2514 | 25 (5) |
| ○ 5 connectors | 221-2515 | 25 (5) |

Dimensions in mm



Mounting carrier; for inline splicing connector with levers; with snap-in mounting foot; gray

|                | Item No. | PU     |
|----------------|----------|--------|
| ○ 1 connector  | 221-2531 | 25 (5) |
| ○ 2 connectors | 221-2532 | 25 (5) |
| ○ 3 connectors | 221-2533 | 25 (5) |
| ○ 4 connectors | 221-2534 | 25 (5) |
| ○ 5 connectors | 221-2535 | 25 (5) |

### Accessories; 221 Series

Appropriate marking system: Marking strips

Mounting foot; for DIN-35 rail; snaps onto terminal blocks with snap-in mounting foot; 6.4 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-120 | 25 |
|------|---------|----|



Mounting foot with screw; for DIN-35 rail; can be screwed to terminal blocks with mounting flange; 6.4 mm wide

|      |         |    |
|------|---------|----|
| gray | 209-123 | 25 |
|------|---------|----|



Mounting screw; for mounting foot (209-120)

|         |          |
|---------|----------|
| 209-119 | 500 (50) |
|---------|----------|

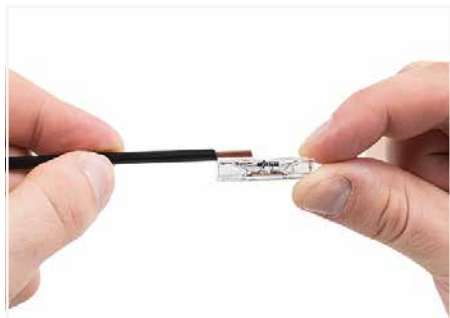
Mounting foot; for DIN-15 rail; snaps onto terminal blocks with snap-in mounting foot; 6.4 mm wide

|      |          |    |
|------|----------|----|
| gray | 209-1115 | 25 |
|------|----------|----|

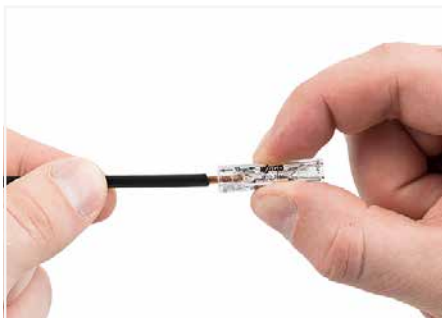


**PUSH WIRE®**

# Inline Splicing Connector 2773 Series Description and Installation



Strip conductor to 10 mm (0.39 inch).



Insert the conductor.



Check for correct conductor position.



Twist the connector alternately left and right while pulling it off the conductor.



8



Wiring conductors in a flush-mounted junction box.



Extending short wires.



Use with a shrink tube

## Inline Splicing Connector 2773 Series

### Technical Data

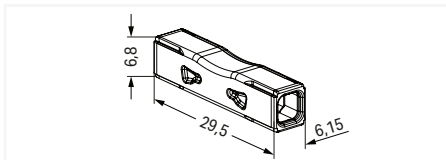
|                                   |                   |
|-----------------------------------|-------------------|
| 0.75 ... 4 mm <sup>2</sup> "s"    | 18 ... 12 AWG "s" |
| 1.5 ... 4 mm <sup>2</sup> "st"    |                   |
| 450 V / 4 kV / 2 ①                | 600 V, 20 A-②     |
| I <sub>N</sub> 32 A               |                   |
| 10 ... 11 mm / 0.39 ... 0.43 inch |                   |

- ① 450 V = rated voltage  
4 kV = rated impulse voltage  
2 = pollution degree  
(see Section 15)

Approvals and corresponding ratings,  
visit [www.wago.com](http://www.wago.com)



Dimensions in mm





PUSH WIRE® inline splicing connector; for solid and stranded conductors; max. 4 mm<sup>2</sup>; 2 conductors; transparent housing; transparent cover; ambient temperature (max.): 85 °C (T85); transparent

| Item No.  | PU         |
|-----------|------------|
| 2773-2401 | 1000 (100) |

## Gelbox; Moisture Protection for Splicing Connectors

### 207 Series

| Illustration  | Description  | Color  | Item No. | PU (SPU) |
|---|--|--------|----------|----------|
|  | Gelbox; branch; for conductors; IPX8; 221 / 2x73 Series; max. 4 mm <sup>2</sup> connectors; size 1     | ○ gray | 207-1331 | 48 (4)   |
|   | Gelbox; branch; for conductors; IPX8; 221 / 2x73 Series; max. 4 mm <sup>2</sup> connectors; size 2     | ○ gray | 207-1332 | 48 (4)   |
|   | Gelbox; branch; for conductors; IPX8; 221 / 2x73 Series; max. 4 mm <sup>2</sup> connectors; size 3     | ○ gray | 207-1333 | 36 (3)   |
|  | Gelbox; inline connection; for conductors; IPX8; 221 Series; max. 4 mm <sup>2</sup> connectors; size 1 | ○ gray | 207-1372 | 28 (4)   |
|   | Gelbox; inline connection; for conductors; IPX8; 221 Series; max. 4 mm <sup>2</sup> connectors; size 2 | ○ gray | 207-1373 | 28 (4)   |
|   | Gelbox; inline connection; for conductors; IPX8; 221 Series; max. 4 mm <sup>2</sup> connectors; size 3 | ○ gray | 207-1375 | 14       |
|  | Gelbox; branch; for conductors; IPX8; 221 Series; max. 6 mm <sup>2</sup> connectors; size 1            | ○ gray | 207-1431 | 48 (4)   |
|   | Gelbox; branch; for conductors; IPX8; 221 Series; max. 6 mm <sup>2</sup> connectors; size 2            | ○ gray | 207-1432 | 36 (3)   |
|   | Gelbox; branch; for conductors; IPX8; 221 Series; max. 6 mm <sup>2</sup> connectors; size 3            | ○ gray | 207-1433 | 24 (2)   |

#### Permitted combinations of splicing connectors and Gelbox:

| Item No. | 221-412 | 221-413 | 221-415 | 221-612 | 221-613 | 221-615 | 221-2411 | 221-2401 | 2273-202 | 2273-203 | 2273-204 | 2273-208 |
|----------|---------|---------|---------|---------|---------|---------|----------|----------|----------|----------|----------|----------|
| 207-1331 | 1 x     | 1 x     | –       |         |         |         |          |          | 2 x      | –        | 1 x      | 1 x      |
| 207-1332 | 2 x     | –       | 1 x     |         |         |         |          |          | 3 x      | 2 x      | –        | 1 x      |
| 207-1333 | 3 x     | 2 x     | –       |         |         |         |          |          | 4 x      | –        | 2 x      | 2 x      |
| 207-1372 |         |         |         |         |         |         | 2 x      | 2 x      |          |          |          |          |
| 207-1373 |         |         |         |         |         |         | 3 x      | 3 x      |          |          |          |          |
| 207-1375 |         |         |         |         |         |         | 5 x      | 5 x      |          |          |          |          |
| 207-1431 |         |         |         | 1 x     | 1 x     | –       |          |          |          |          |          |          |
| 207-1432 |         |         |         | 2 x     | –       | 1 x     |          |          |          |          |          |          |
| 207-1433 |         |         |         | 3 x     | 2 x     | –       |          |          |          |          |          |          |

For other connectors/combinations, please contact the factory.



Open the Gelbox.



Place the wired connector in the Gelbox.



Application example



Close latch securely.



Re-accessible: Open the Gelbox, remove the gel and re-wire with new components.



Application example

#### Application Notes:

- Low voltage: For low-voltage applications (e.g., 230 V), double insulation of the entire system – especially of the conductors – must be ensured. This can be achieved, for example, by installing the Gelboxes in a housing/junction box according to EN 60670.
- Extra-low voltage: For extra-low voltage applications (e.g., SELV), basic insulation of the electrical cable is sufficient. However, the basic insulation of the cable must be suitable for the application.
- Re-accessibility: The Gelboxes and connectors can be accessed again.
- Reusability: Both Gelboxes and connectors must not be reused, as their watertight nature cannot be guaranteed if used again. After opening, connect new components to the cable.

#### Technical Data:

- Voltage range: see connector voltage
- Rated current: see connector current
- Rated surge voltage: 2.5 kV

- Insulation resistance: 5 MΩ
- Continuous operating temperature: max. 105 °C
- Ambient air temperature: max. 85 °C

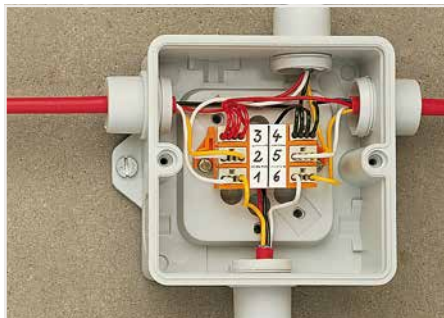
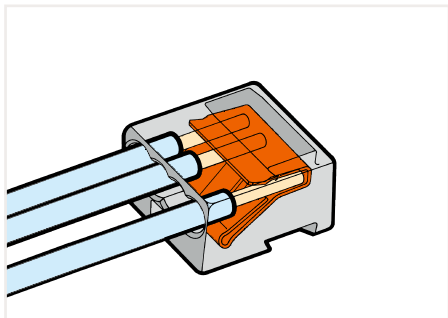
- Protection class: IPX8
- Suitable for indefinite storage because the gel is free of hazardous substance according to CLP



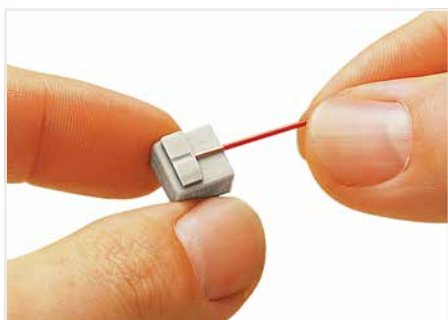
# PUSH WIRE® Connector for Junction Boxes

## Ø 0.8 mm ▶ 243 Series

| Illustration                 | Description   | Color         | Item No. | PU   | Dimensions (W x H x D)                           | Electrical Data   |
|------------------------------|---|---------------|----------|------|--|---|
| <b>4-wire connector</b>      |   |               |          |      |  |   |
|                              | PUSH WIRE® connector for junction boxes; 4 conductors ①       | ● dark gray   | 243-204  | 1000 | 10 x 5.8 x 10 mm /<br>0.394 x 0.23 x 0.394 inch  | 100 V / 1.5 kV / 2 ①<br>I <sub>N</sub> 6 A;<br>150 V, 7 A ②<br>150 V, 7 A ③ |
|                              | PUSH WIRE® connector for junction boxes; 4 conductors ①       | ● red         | 243-804  | 1000 |  |   |
|                              | PUSH WIRE® connector for junction boxes; 4 conductors ①       | ○ light gray  | 243-304  | 1000 |  |   |
|                              | PUSH WIRE® connector for junction boxes; 4 conductors ①       | ● yellow      | 243-504  | 1000 |  |   |
|                              | PUSH WIRE® connector for junction boxes; 4 conductors ②       | ○ transparent | 243-144  | 1000 | 10 x 5.8 x 10 mm /<br>0.394 x 0.23 x 0.394 inch  | 100 V / 1.5 kV / 2 ①<br>I <sub>N</sub> 6 A; 150 V, 7 A ③                    |
| <b>8-wire connector</b>      |   |               |          |      |  |   |
|                              | PUSH WIRE® connector for junction boxes; 8 conductors ①       | ● dark gray   | 243-208  | 500  | 18.4 x 5.8 x 10 mm /<br>0.71 x 0.23 x 0.394 inch | 100 V / 1.5 kV / 2 ①<br>I <sub>N</sub> 6 A;<br>150 V, 7 A ②<br>150 V, 7 A ③ |
|                              | PUSH WIRE® connector for junction boxes; 8 conductors ①       | ● red         | 243-808  | 500  |  |   |
|                              | PUSH WIRE® connector for junction boxes; 8 conductors ①       | ○ light gray  | 243-308  | 500  |  |   |
|                              | PUSH WIRE® connector for junction boxes; 8 conductors ①       | ● yellow      | 243-508  | 500  |  |   |
| <b>Modular PCB connector</b> |   |               |          |      |  |   |
|                              | 4-conductor modular PCB connector; for individual solder pins | ● dark gray   | 243-211  | 500  | 10 x 11.5 x 10 mm /<br>0.4 x 4.5 x 0.4 inch      | 100 V ≈;<br>I <sub>N</sub> 6 A  |
|                              | 4-conductor modular PCB connector; for individual solder pins | ● red         |          |      |  |   |
|                              |   | ○ light gray  | 243-212  | 500  |  |   |
|                              |   | ● yellow      |          |      |  |   |
| <b>Mounting Carrier</b>      |   |               |          |      |  |   |
|                              | for 4 connectors  | ● orange      | 243-112  | 10   |  |   |
|                              | for 8 connectors  | ● orange      | 243-113  | 10   |  |   |



Typical application in a terminal box for burglar alarm – screw mount



Strip solid conductors to 5 ... 6 mm (0.19 ... 0.23 inch).



DIN-35 rail-mount application (residential door bell)



Example of a residential intercom application

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① Conductor range: Ø 0.6 ... 0.8 mm "s"; 22 ... 20 AWG;  
When using conductors of the same diameter, 0.5 mm (24 AWG) or 1 mm (18 AWG) diameters are also possible;  
Strip length: 5 ... 6 mm / 0.2 ... 0.24 inch

② Conductor range: Ø 0.4 ... 0.5 mm "s"; 26 ... 24 AWG  
③ 800 V = rated voltage  
8 kV = rated impulse voltage  
3 = pollution degree

Continuous operating temperature (max.): 105 °C  
Ambient temperature (max.): 60 °C





# WAGO Lighting Management

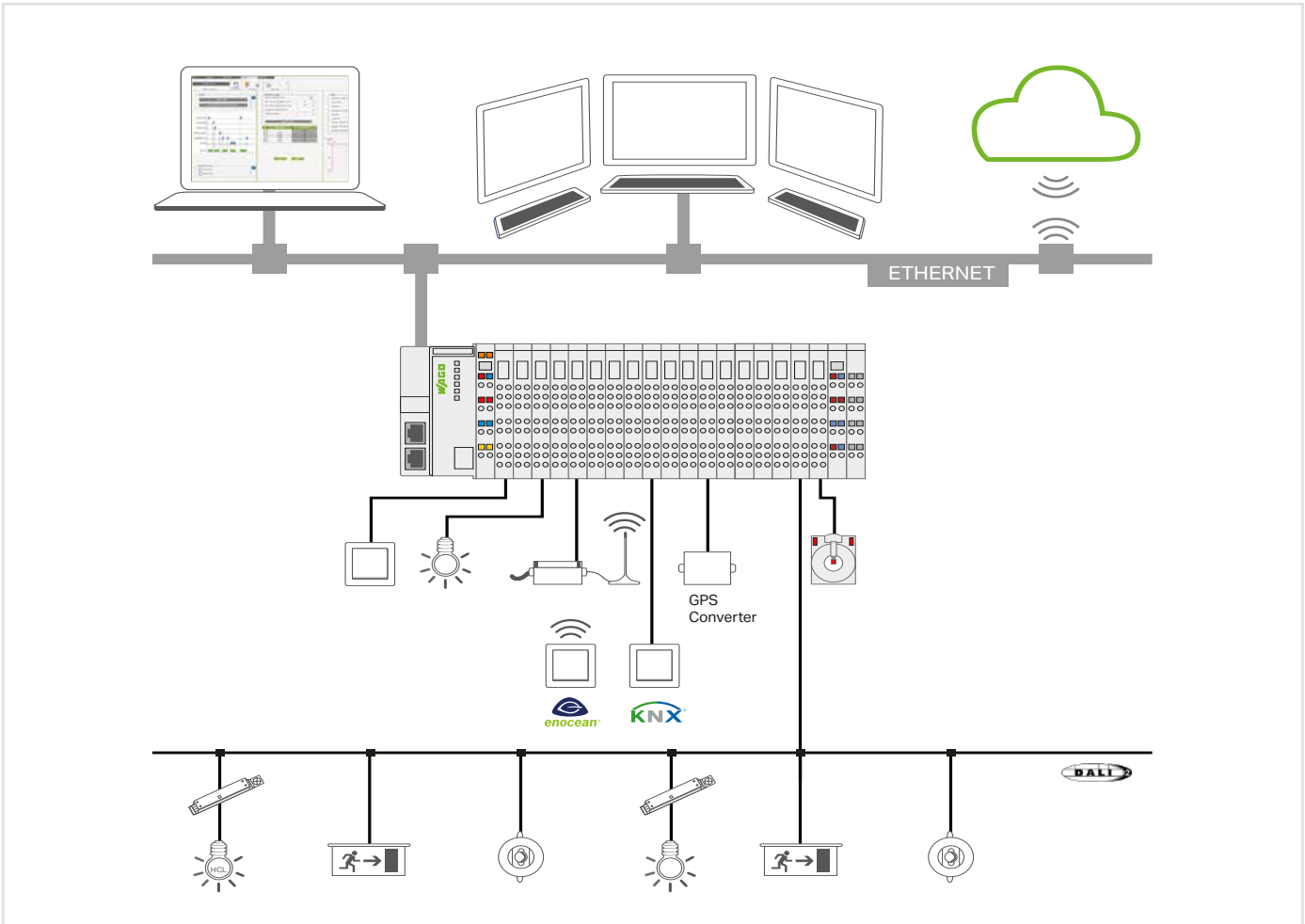
## WAGO Lighting Management

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# WAGO Application Lighting Management



WAGO Application Lighting Management is a proven solution based on predefined hardware and preconfigured software, which greatly simplifies planning, commissioning and operation. The basic idea: WAGO Application Lighting Management is ready for the vastly different light requirements of warehouses and production facilities. For example, a production facility can be divided into segments in which light can be adapted flexibly. Each segment receives signals from sensors and actuators to set the appropriate light intensity automatically. Using these segments, it is possible to realize retrofits and room changes quickly and very easily – all through Web configuration. A separate HTML5 user interface is available for convenient and intuitive operation of WAGO Application Lighting Management. Operation is optimized for display on different end devices, such as tablets, smartphones and touch panels.



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| Item Description  |                      | Item No.           |
|---|----------------------|--------------------|
| WAGO Application Lighting Management; single license; online activation   |                      | 2759-204/261-1000  |
| WAGO Application Lighting Management; S; single license; online activation; up to 10 DALI lines, includes Lighting Management Visualization S |                      | 2759-205/261-1000  |
| WAGO Visualization Lighting Management; single license; online activation   |                      |                    |
| Visualization – S   | 1 controller         | 2759-2101/271-1000 |
| Visualization – M   | up to 3 controllers  | 2759-2102/271-1000 |
| Visualization – L   | up to 10 controllers | 2759-2103/271-1000 |
| Compatible Controllers/Touch Panels   |                      |                    |
| Controller PFC200; G2; 2ETH RS  |                      | 750-8212           |
| Touch Panel 600 Advanced Line; PIO3   |                      | 762-53xx/8000-002  |

A single license allows installation on one controller/touch panel. One license per controller/touch panel is required.

|   |  |
|---|--|
| Delivery type                                   | License certificate by email (software available for download)   |
| For data sheet and additional information, see: | <a href="http://wago.com/2759-204/261-1000">wago.com/2759-204/261-1000</a><br><a href="http://wago.com/2759-205/261-1000">wago.com/2759-205/261-1000</a><br><a href="http://wago.com/2759-210x/271-1000">wago.com/2759-210x/271-1000</a><br><a href="http://wago.com/lighting-management">wago.com/lighting-management</a> |

The "Lighting Management" software is a pre-programmed application based on the CODESYS development environment and can be used for both PFC200 G2 Controllers or Touch Panels 600.

To download the application and license to the device, WAGOupload software is required, which can be obtained free of charge from the WAGO homepage. Internet connection may be required for license activation.





The products listed below are typically used in conjunction with WAGO Application Lighting Management. Detailed information on the products, as well as other variants and accessories, can be found in our Full Line Catalog, Automation Technology or Interface Electronics.

| WAGO Application Lighting Management                                      |   |                      |
|---|---|----------------------|
| Required Products   | Description   | Item No.             |
| <b>Base Unit</b>  |   |                      |
| DALI Multi-Master   | In addition to 64 DALI actuators (ECGs), a DALI Multi-Master Module supports up to 16 DALI Multi-sensors (max. 64 sensor addresses); max. 10 DALI modules per base package. | 753-647              |
| End Module  | An end module must be snapped onto the assembly at the end of a fieldbus node.  | 750-600              |
| Power Supply to I/O Node  | 24 VDC power supply to controllers and additional modules   | 787-1012             |
| Power Supply for DALI Multi-Master  | Supplies a maximum of five DALI Multi-Masters   | 787-1007             |
| <b>Extension for Inputs/Buttons</b>                                       |   |                      |
| 16-Channel Digital Input; 24 VDC; 3 ms                                    | For 1...16 light button/switch inputs; max. 4 extensions per base package   | 750-1405             |
| <b>Extension for Outputs/Actuators</b>                                    |   |                      |
| 16-Channel Digital Output; 24 VDC; 0.5 A                                  | For 1 ... 16 actuators/lamps/relays/ECG control; max. 2 extensions per base package   | 750-1504             |
| Socket with Relay and Status Indicator;<br>1 Make Contact; 24 VDC         | Light switching via relay   | 788-357              |
| <b>Extension for EnOcean® Radio</b>                                       |   |                      |
| Serial Interface RS-232/485   | Serial interface connects to STC65-RS-485 EVC EnOcean® Radio Transmitter/Receiver for 1 ... 64 rocker switches  | 750-652              |
| EnOcean® Receiver/Transmitter   | Receives EnOcean® radio signals and transmits them to the I/O node  | 2852-7101            |
| EnOcean® Repeater   | Extends the transmission range (for more planning information, visit the EnOcean® website)  | 2852-7102            |
| Radio Transmitter; EnOcean® easyfit PTM 250<br>2-Channel Lighting Control | 1 ... 2 or 1 ... 4 signals; range of 30 meters from the radio receiver in buildings   | 758-940/001-000      |
| Radio Transmitter; EnOcean® easyfit PTM 250<br>4-Channel Lighting Control |   | 758-940/003-000      |
| <b>Extension for External Time Request</b>                                |   |                      |
| GPS DCF Converter   | Converter/external receiver for time synchronization  | 2852-7901            |
| <b>Extension for Energy Data Measurement</b>                              |   |                      |
| 3-Phase Power Measurement; 690 VAC  | The 3-Phase Power Measurement Module (750-495) measures electrical data in a three-phase supply network.  | 750-495/xxx-xxx      |
| Current and Voltage Connections   | Pre-assembled terminal block assemblies for easy connection and short-circuiting of current transformers (for current transformers, see Full Line Catalog, Volume 4)        | 2007-8874; 2007-8877 |
| <b>Extension for KNX® Buttons</b>   |   |                      |
| KNX®/EIB/TP1 Interface  | Connects KNX® buttons to the I/O node; max. 1 module per base package   | 753-646              |
| <b>Extension for Sensors (DALI-2)</b>                                     |   |                      |
| DALI Sensor; PD11-BMS-FLAT  | LOW BAY Sensor for offices (2 ... 5 m)  | 2852-7210            |
| DALI Sensor; PD4-BMS-GH   | HIGH BAY Sensor for warehouses (5 ... 16 m)   | 2852-7213            |
| DALI Sensor; PD4N-BMS   | MID BAY Sensor for open-plan offices, underground garages, entrance halls, production facilities (2 ... 10 m)   | 2852-7214            |
| Adapter; AP Assembly Kit IP54; Accessories for<br>2852-7214               | Accessories for surface mounting of the PD4N-BMS (B.E.G.)   | 2852-7215            |
| DALI Sensor; MSensor G3 SRC 30 PIR 5DPI WH                                | LOW BAY Sensor for offices (up to 5 m)  | 2852-7220            |
| DALI Sensor; MSensor G3 SSM 30 10DPI WH                                   | MID BAY Sensor for high-ceiling rooms (up to 10 m)  | 2852-7221            |
| DALI Sensor; MSensor G3 SSM 30 5DPI WH                                    | MID BAY Sensor for high-ceiling rooms (up to 5 m)   | 2852-7223            |
| DALI Sensor; IR Quattro HD DALI-2   | LOW/MID BAY Sensor for offices (2.5 ... 10 m)   | 2852-7230            |
| DALI Sensor; IR Quattro SLIM XS DALI-2                                    | LOW BAY Sensor for offices, slim design (2.5 ... 4 m)   | 2852-7231            |
| DALI Sensor; IS3360 MX HIGH BAY DALI-2                                    | HIGH BAY Sensor for industrial buildings, circular detection range (4 ... 14 m)   | 2852-7232            |
| DALI Sensor; IS345 MX HIGH BAY DALI-2                                     | HIGH BAY Sensor for industrial buildings, rectangular detection range (4 ... 14 m)  | 2852-7233            |
| DALI XC G3 (DALI-2)   | Push-button coupler connects 4 conventional push-buttons to DALI  | 2852-7225            |
| <b>DALI Sensors</b>   |   |                      |
| DALI Multi-Sensor Kit   | Brightness measurement and motion sensor: Kit connects to a DALI bus system   | 2851-8201            |
| DALI Sensor Coupler   | Sensor coupler connects MULTI-3-CI Sensors to DALI (max. 16 DALI Sensor Couplers per 753-647 DALI Multi-Master)   | 2851-8202            |
| DALI HIGHBAY ADAPTER + HIGH BAY   | Brightness measurement and motion sensor for large installation heights (3 ... 13 m)  | 2852-7207, 2852-7201 |
| DALI HIGHBAY ADAPTER + VISION   | Motion sensor for large areas, open offices, hallways or warehouses   | 2852-7207, 2852-7202 |
| DALI LS/PD LI   | Motion sensor for office lighting (1 ... 5 m)   | 2852-7203            |
| DALI Sensor Coupler HF LS LI +  |   | 2852-7205            |
| Radar Sensor HF LS LI   | Light and recessed ceiling sensor: combined daylight and motion detection, motion detection via radar   | 2852-7206            |
| 4p4c Connection Cable, 50 cm  |   | 2852-7208            |
| DALI XC   | Push-button coupler connects 4 conventional push-buttons to DALI  | 2852-7301            |
| DALI Sensor Coupler E   | Sensor coupler connects standard sensors to DALI  | 2852-7204            |



# WAGO Accessories and Tools

## WAGO Accessories and Tools

|   |                              | Series  | Page |
|---|------------------------------|---|------|
|    | Operating Tools              | 206<br>209<br>210<br>233<br>236<br>2059<br>2060<br>2061 | 266  |
|    | WINSTA® Operating Tools      | 770<br>890  | 270  |
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# Operating Tool 210 Series



Operating tool; type 1; (2.5 x 0.4) mm blade, with partially insulated shaft

| Item No. | PU     |
|----------|--------|
| 210-719  | 50 (1) |

Operating tool set (210-719, 210-720, 210-721)

| Item No. | PU |
|----------|----|
| 210-722  | 1  |

Operating tool; type 1; short; (2.5 x 0.4) mm straight blade; with a partially insulated shaft

| Item No. | PU     |
|----------|--------|
| 210-647  | 50 (1) |

Operating tool; type 2; (3.5 x 0.5) mm blade, with partially insulated shaft

| Item No. | PU     |
|----------|--------|
| 210-720  | 50 (1) |

Operating tool; type 2; short; (3.5 x 0.5) mm straight blade; with a partially insulated shaft

| Item No. | PU     |
|----------|--------|
| 210-657  | 50 (1) |

Operating tool; type 3; (5.5 x 0.8) mm blade, with partially insulated shaft

| Item No. | PU     |
|----------|--------|
| 210-721  | 25 (1) |

Operating tool; type 1; short; (2.5 x 0.4) mm angled blade; with a partially insulated shaft

| Item No. | PU     |
|----------|--------|
| 210-648  | 50 (1) |

Operating tool; type 2; short; (3.5 x 0.5) mm angled blade; with a partially insulated shaft

| Item No. | PU     |
|----------|--------|
| 210-658  | 50 (1) |

# 10



The blade dimensions of the above-listed operating tools are ideal for operating both PCB terminal blocks and MCS connectors.



The above-listed operating tools with blade dimensions per DIN 5624 are ideal for operating PCB terminal blocks.

# Operating Tool

## 233, 236, 206 Series



Operating tool; for factory wiring of PCB terminal strips; metal, partially insulated

| Color   | Item No. | PU |
|---------|----------|----|
| ● green | 233-335  | 50 |

Operating tool; for factory wiring of PCB terminal strips; insulated

| Item No. | PU  |
|----------|-----|
| 236-332  | 400 |

Operating tool; for factory wiring of PCB terminal strips; insulated

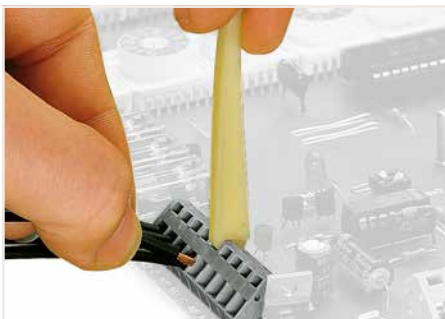
| Color   | Item No. | PU  |
|---------|----------|-----|
| natural | 233-332  | 500 |

Operating tool; for factory wiring of PCB terminal strips; metal

| Item No. | PU  |
|----------|-----|
| 236-335  | 500 |

Operating tool; for factory wiring of PCB terminal strips; insulated

| Color    | Item No. | PU  |
|----------|----------|-----|
| ● yellow | 233-331  | 500 |



Compared to standard screwdrivers, these operating tools are far more convenient for wiring PCB terminal strips at factory.

## Operating Tool 209 and 280 Series



Operating tool; insulated; 5 / 5.08 mm pin spacing; operation parallel to conductor entry; for male and female connectors with CAGE CLAMP® connection

|        | Item No. | PU  |
|--------|----------|-----|
| 1-way  | 209-130  | 100 |
| 2-way  | 280-432  | 100 |
| 3-way  | 280-433  | 100 |
| 4-way  | 280-434  | 40  |
| 5-way  | 280-435  | 40  |
| 6-way  | 280-436  | 40  |
| 7-way  | 280-437  | 40  |
| 8-way  | 280-438  | 30  |
| 9-way  | 280-439  | 30  |
| 10-way | 280-440  | 30  |

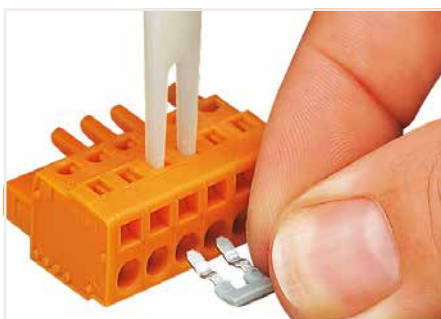
Operating tool; insulated; 5 / 5.08 mm pin spacing; operation perpendicular to conductor entry; for male and female connectors with CAGE CLAMP® connection

|       | Item No. | PU |
|-------|----------|----|
| 2-way | 209-132  | 40 |

10



Inserting a male connector with long contact pins into a front-entry rail-mount terminal block via 6-pole operating tool.



Operating tool for the 2-way jumper slot (Item No. 231-902)

# Operating Tool

## 206, 2059, 2060, 2061; 2065; 2070 Series



| Operating tool; for 2059 Series PCB Terminal Blocks |    |  |
|---|----|--|
| Item No.  | PU |  |
| 206-859   | 5  |  |

| Operating tool; for 2059 Series PCB Terminal Blocks; insulated |     |  |
|--|-----|--|
| Item No.   | PU  |  |
| 2059-189   | 600 |  |

| Operating tool; for 2065 Series PCB Terminal Blocks; insulated |     |  |
|--|-----|--|
| Item No.   | PU  |  |
| 2065-189   | 600 |  |

| Operating tool; for 2060 Series PCB Terminal Blocks |    |  |
|---|----|--|
| Item No.  | PU |  |
| 206-860   | 5  |  |

| Operating tool; for 2060 Series PCB Terminal Blocks; insulated |     |  |
|--|-----|--|
| Item No.   | PU  |  |
| 2060-189   | 300 |  |

| Operating tool; for 2061 Series PCB Terminal Blocks |    |  |
|---|----|--|
| Item No.  | PU |  |
| 206-866   | 5  |  |

| Operating tool; for 2061 Series PCB Terminal Blocks; insulated |     |  |
|--|-----|--|
| Item No.   | PU  |  |
| 2061-190   | 300 |  |



| Operating tool; for 2070 Series PCB Terminal Blocks; insulated |     |  |
|--|-----|--|
| Item No.   | PU  |  |
| 2070-400   | 100 |  |



Insert/remove fine-stranded conductors – by lightly pressing on the push-button.

# WINSTA® Operating Tool

## 890, 770 Series



| Operating tool; 2-pole; for WINSTA® MINI Connectors |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● green   | 890-382  | 1  |



| Operating tool; 3-pole; for WINSTA® MINI Connectors |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● green   | 890-383  | 1  |



| Operating tool; 4-pole; for WINSTA® MINI Connectors |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● green   | 890-384  | 1  |



| Operating tool; 5-pole; for WINSTA® MINI Connectors |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● green   | 890-385  | 1  |



| Operating tool; 2-pole; for WINSTA® MIDI Connectors |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● green   | 770-382  | 1  |



| Operating tool; 3-pole; for WINSTA® MIDI Connectors |          |    |
|---|----------|----|
| Color   | Item No. | PU |
| ● green   | 770-383  | 1  |

## Disconnection Tool 206 Series



Disconnection tool; removes conductors from 744 Series PUSH WIRE® connections

| Item No. | PU |
|----------|----|
| 206-841  | 50 |

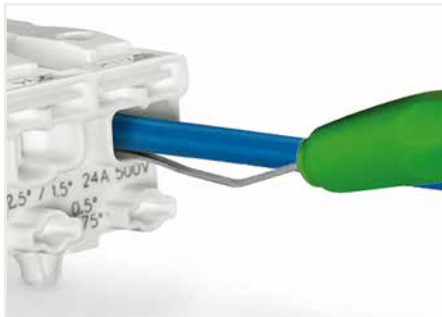


Disconnection tool; removes conductors from 294 Series PUSH WIRE® connections

| Item No. | PU |
|----------|----|
| 206-294  | 1  |



Remove the conductor by inserting a disconnection tool into the operating slot and pull it out.



Conductor removal: Slide disconnection tool beneath the conductor and pull conductor out.



# Cable Knife



Cable knife; for Ø 8 ... 28 mm / 0.31 ... 1.10 inch; with a unique, changeable cable bracket system; including cable bracket

|  | Item No. | PU |
|--|----------|----|
|  | 206-1403 | 1  |

Cable knife set; for Ø 4 ... 70 mm / 0.16 ... 2.75 inch; including all cable brackets in a Sortimo® Box

|  | Item No. | PU |
|--|----------|----|
|  | 206-1400 | 1  |


Never use this tool on or near live electrical circuits!




To replace the cable bracket, use the new bracket as an operating tool and pull it upwards.

### Accessories; item-specific

Cable bracket; for Ø 4 ... 16 mm / 0.16 ... 0.63 inch

|  |          |   |
|--|----------|---|
|  | 206-1411 | 1 |
|--|----------|---|

Cable bracket; for Ø 8 ... 28 mm / 0.31 ... 1.10 inch

|  |          |   |
|--|----------|---|
|  | 206-1412 | 1 |
|--|----------|---|


Cable bracket; for Ø 27 ... 35 mm / 1.06 ... 1.38 inch

|  |          |   |
|--|----------|---|
|  | 206-1413 | 1 |
|--|----------|---|

Cable bracket; for Ø 35 ... 50 mm / 1.38 ... 1.97 inch

|  |          |   |
|--|----------|---|
|  | 206-1414 | 1 |
|--|----------|---|

Cable bracket; for Ø 50 ... 70 mm / 1.97 ... 2.75 inch

|  |          |   |
|--|----------|---|
|  | 206-1415 | 1 |
|--|----------|---|

### Accessories

|                    |          |   |                  |          |   |
|--------------------|----------|---|------------------|----------|---|
| Spare inside blade | 206-1418 | 3 | Spare hook blade | 206-1419 | 1 |
|--------------------|----------|---|------------------|----------|---|

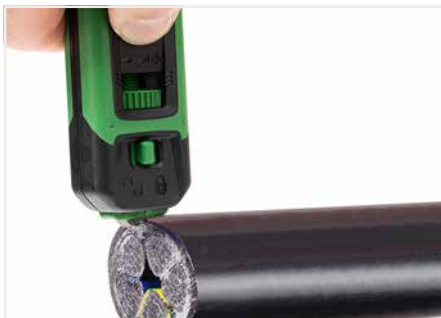


The cutting depth of the hook blade can be adjusted with the slider.



The cutting depth of the inner knife can be adjusted with the screw.

10



Strip large cross sections with the hook blade.



Release the fuse before using the hook blade.

# Cable Stripper



In-socket cable stripper; for Ø 8 ... 13 mm / 5/16 ... 1/2 inch

| Item No. | PU |
|----------|----|
| 206-1441 | 1  |



Universal cable stripper; for Ø 8 ... 13 mm / 5/16 ... 1/2 inch

| Item No. | PU |
|----------|----|
| 206-1442 | 1  |



Data cable stripper; for Ø 4.5 ... 10 mm / 3/16 ... 3/8 inch

| Item No. | PU |
|----------|----|
| 206-1451 | 1  |



**Product features:**

- Extra-long design and improved force transmission simplifies stripping in deep device connection sockets
- Special four-blade design for an even more precise round cut
- No cutting depth adjustment required
- TiN-coated blades, TÜV/GS tested
- Ø 8 ... 13 mm / 5/16 ... 1/2 inch
- Strips all standard round cables, including NYM 3 x 1.5 mm<sup>2</sup>/16 AWG ... 5 x 2.5 mm<sup>2</sup>/14 AWG



**Sheath stripping: longitudinal cut**

**Product features:**

- Secure grip achieved with soft padding for non-slip grips
- Enhanced functionality
- New locking mechanism prevents the unwanted opening of the tool
- Absolutely straightforward, quick and easy longitudinal cuts – with innovative internal cable duct
- Redesigned blade layout and intake to stop cable waste from jamming the tool
- Durable and ergonomically designed pocket clip
- Ø 8 ... 13 mm / 5/16 ... 1/2 inch



**Product features:**

- Strip outer insulation and foil sheathing with one tool
- Ideal for stripping PVC-insulated data cables with thin insulation (e.g., Cat. 5, Cat. 6, Cat. 7, twisted pair cable)
- TiN-coated blades
- Ø 4.5 ... 10 mm / 3/16 ... 3/8 inch



Stripping a cable sheath.



Built-in handy knife



Stripping a wire insulation.

# Stripping Pliers



Never use this tool on or near live electrical circuits!

The stripping pliers for sensor cables have a blade geometry specially designed for sensor cables with a smaller cross-section and a working range from Ø 3.2 mm / 0.13 inch (for stranded cables and round cables with Ø 3.2 mm ... 4.4 mm / 0.13 ... 0.17 inch).

The stripping pliers for control cables are designed for stronger cables from Ø 4.4 mm / 0.17 inch (for stranded cables and round cables with Ø 4.4 mm ... 7 mm / 0.17 ... 0.27 inch).

These stripping pliers quickly and safely strip cables for connecting, e.g., sensor/actuator distribution boxes, bus couplers and pluggable connectors.

Stripping pliers; for sensor cables; for Ø 3.2 ... 4.4 mm / 0.13 ... 0.17 inch

| Item No. | PU |
|----------|----|
| 206-1481 | 1  |

Stripping pliers; for control cables; for Ø 4.4 ... 7 mm / 0.17 ... 0.27 inch

| Item No. | PU |
|----------|----|
| 206-1482 | 1  |

**Accessories; item-specific**

Replacement blade set; for Ø 3.2 ... 4.4 mm / 0.13 ... 0.17 inch

|          |   |
|----------|---|
| 206-1491 | 1 |
|----------|---|



**Accessories; item-specific**

Replacement blade set; for Ø 4.4 ... 7 mm / 0.17 ... 0.27 inch

|          |   |
|----------|---|
| 206-1492 | 1 |
|----------|---|



**Suitable for:**

- Halogen-free PUR sensor/actuator cables
- Highly flexible TPE-U cables
- Control cables
- PUR cables
- PUR/PVC cables
- PVC cables
- Multi-core cables
- Shielded and unshielded cables



## Wire Stripper




Wire stripper "Quickstrip Vario"; 0.03 ... 16 mm<sup>2</sup> / 34 ... 6 AWG; with wire cutter


| Item No. | PU |
|----------|----|
| 206-1125 | 1  |

### Accessories


Blade set; Standard; 0.03 ... 16 mm<sup>2</sup> / 34 ... 6 AWG

|   |          |   |
|---|----------|---|
|  | 206-1126 | 1 |
|---|----------|---|


Blade set; V-blade; 0.14 ... 4 mm<sup>2</sup> / 24 ... 12 AWG

|   |          |   |
|---|----------|---|
|  | 206-1127 | 1 |
|---|----------|---|


Blade set; Oval blade; 10 ... 16 mm<sup>2</sup> / 8 ... 6 AWG

|   |          |   |
|---|----------|---|
|  | 206-1128 | 1 |
|---|----------|---|

Spare stripping stop

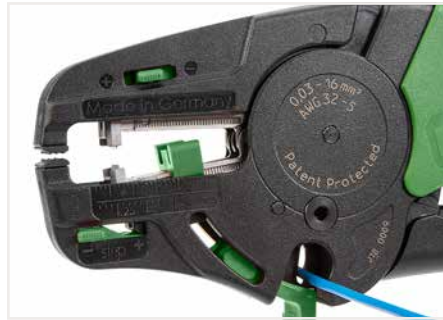
|   |          |   |
|---|----------|---|
|  | 206-1129 | 1 |
|---|----------|---|

Spare cut protector

|   |          |   |
|---|----------|---|
|  | 206-1131 | 1 |
|---|----------|---|

Spare clamping jaws

|   |          |   |
|---|----------|---|
|  | 206-1132 | 1 |
|---|----------|---|



Cutting a conductor.



Partially stripping a conductor.

### Wire Stripper:

- Automatically adjust to conductor size
- Stripping blades don't damage conductor strands
- Gripping pressure of jaws adjusts automatically to conductor insulation diameter
- Clamping jaws and stripping blades automatically open once the stripping process is completed – no splaying of the conductor strands
- Exact strip length may be set by sliding black setting stop
- Stripping blades can be replaced
- Self-sharpening, fully protected cutter (replaceable)
- Entire body made of glass-fiber-reinforced polyamide
- Cutting capacity of the wire cutter of fine-stranded conductors up to 16 mm<sup>2</sup> (6 AWG)

# Crimping Tool




Crimping tool "Variocrimp 4"; for insulated and uninsulated ferrules; Crimping range: 0.25 ... 4 mm<sup>2</sup> (24 ... 12 AWG)

| Item No. | PU |
|----------|----|
| 206-1204 | 1  |


Crimping tool "Variocrimp 16"; for insulated and uninsulated ferrules; Crimping range: 6 mm<sup>2</sup> (10 AWG), 10 mm<sup>2</sup> (8 AWG) and 16 mm<sup>2</sup> (6 AWG)

| Item No. | PU |
|----------|----|
| 206-1216 | 1  |


Spring clamp; large

|  |          |   |
|--|----------|---|
|  | 206-1205 | 1 |
|--|----------|---|

Spring clamp; small

|   |          |   |
|---|----------|---|
|  | 206-1206 | 1 |
|---|----------|---|

Spring clamp; small

|   |          |   |
|---|----------|---|
|  | 206-1206 | 1 |
|---|----------|---|

**Application notes:**

- The built-in crimping pressure control of "Variocrimp 4" automatically adjusts the crimping force to the conductor cross-section. Select the wire gauge on "Variocrimp 16" before crimping.
- Only one crimping station is needed to handle the specified conductor range.
- Uniform, compact crimping on all four sides for high conductor retention.
- No need to center the ferrules into the terminal blocks.
- Crimping can be performed from either side (for left- or right-handed users).
- Built-in ratchet mechanism ensures gas-tight crimp connection.
- Crimping tools open automatically after crimping operation is complete.
- Ergonomically designed handles.



A perfect gas-tight crimp – both electrically and mechanically reliable



Insert the ferruled conductor into the crimping station.



Squeeze handles until ratchet mechanism is released.



Only for "Variocrimp 16":  
Adjust conductor cross-section with crimping tool in open position.



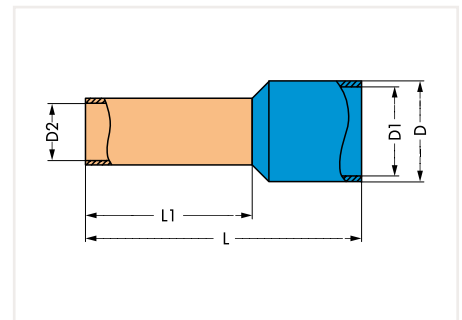
# Ferrule 206 Series

| Sleeve for<br>mm <sup>2</sup>   | AWG | Color<br>Code | Strip<br>Length<br>mm | L  | L1 | D   | D1  | D2  | Item No. | PU   |
|---|-----|---------------|-----------------------|----|----|-----|-----|-----|----------|------|
| Ferrule; insulated; extra long for TOPJOB® S Rail-Mount Terminal Blocks |     |               |                       |    |    |     |     |     |          |      |
| 0.5   | 22  | ○             | 12                    | 16 | 10 | 3.1 | 2.6 | 1   | 216-241  | 1000 |
| 0.75  | 20  | ○             | 12                    | 16 | 10 | 3.3 | 2.8 | 1.2 | 216-242  | 1000 |
| 0.75  | 20  | ○             | 14                    | 18 | 12 | 3.3 | 2.8 | 1.2 | 216-262  | 1000 |
| 1   | 18  | ●             | 12                    | 16 | 10 | 3.5 | 3   | 1.4 | 216-243  | 1000 |
| 1   | 18  | ●             | 14                    | 18 | 12 | 3.5 | 3   | 1.4 | 216-263  | 1000 |
| 1.5   | 16  | ●             | 12                    | 16 | 10 | 4   | 3.5 | 1.7 | 216-244  | 1000 |
| 1.5   | 16  | ●             | 14                    | 18 | 12 | 4   | 3.5 | 1.7 | 216-264  | 1000 |
| 1.5   | 16  | ●             | 20                    | 24 | 18 | 4   | 3.5 | 1.7 | 216-284  | 1000 |
| 2.5   | 14  | ●             | 12                    | 17 | 10 | 4.7 | 4.2 | 2.2 | 216-246  | 1000 |
| 2.5   | 14  | ●             | 14                    | 19 | 12 | 4.7 | 4.2 | 2.2 | 216-266  | 1000 |
| 2.5   | 14  | ●             | 20                    | 25 | 18 | 4.7 | 4.2 | 2.2 | 216-286  | 1000 |
| 4   | 12  | ○             | 14                    | 20 | 12 | 5.4 | 4.8 | 2.8 | 216-267  | 1000 |
| 4   | 12  | ○             | 20                    | 26 | 18 | 5.4 | 4.8 | 2.8 | 216-287  | 500  |
| 6   | 10  | ●             | 14                    | 20 | 12 | 6.9 | 6.3 | 3.5 | 216-208  | 1000 |
| 6   | 10  | ●             | 20                    | 26 | 18 | 6.9 | 6.3 | 3.5 | 216-288  | 500  |
| 10  | 8   | ●             | 20                    | 28 | 18 | 8.4 | 7.6 | 4.5 | 216-289  | 500  |
| 16  | 6   | ●             | 23                    | 28 | 18 | 9.6 | 8.8 | 5.8 | 216-210  | 500  |

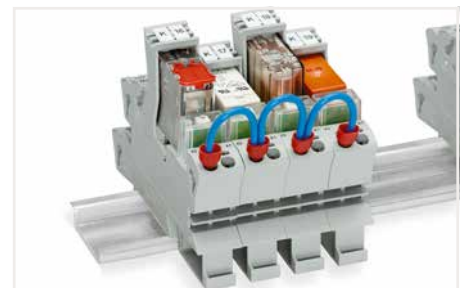
|  |    |   |     |      |     |     |     |      |         |      |
|--|----|---|-----|------|-----|-----|-----|------|---------|------|
| Ferrule; insulated; in standard length |    |   |     |      |     |     |     |      |         |      |
| 0.25                                   | 24 | ● | 7.5 | 10.5 | 6   | 2.5 | 2   | 0.8  | 216-321 | 1000 |
| 0.25                                   | 24 | ● | 9.5 | 12.5 | 8   | 2.5 | 2   | 0.8  | 216-301 | 1000 |
| 0.35                                   | 24 | ● | 7.5 | 10.5 | 6   | 2.5 | 2   | 0.8  | 216-322 | 1000 |
| 0.34                                   | 24 | ● | 9.5 | 12.5 | 8   | 2.5 | 2   | 0.8  | 216-302 | 1000 |
| 0.5                                    | 22 | ○ | 7.5 | 11.5 | 6   | 3   | 2.5 | 1.1  | 216-221 | 1000 |
| 0.5                                    | 22 | ○ | 9.5 | 13.5 | 8   | 3   | 2.5 | 1.1  | 216-201 | 1000 |
| 0.75                                   | 20 | ○ | 8   | 12   | 6   | 3.3 | 2.8 | 1.3  | 216-222 | 1000 |
| 0.75                                   | 20 | ○ | 10  | 14   | 8   | 3.3 | 2.8 | 1.3  | 216-202 | 1000 |
| 1                                      | 18 | ● | 8   | 12   | 6   | 3.6 | 3   | 1.5  | 216-223 | 1000 |
| 1                                      | 18 | ● | 10  | 14   | 8   | 3.6 | 3   | 1.5  | 216-203 | 1000 |
| 1.5                                    | 16 | ● | 8   | 12   | 6   | 4   | 3.4 | 1.8  | 216-224 | 1000 |
| 1.5                                    | 16 | ● | 10  | 14   | 8   | 4   | 3.4 | 1.8  | 216-204 | 1000 |
| 2.08                                   | 14 | ● | 10  | 14.5 | 8   | 4.2 | 3.6 | 2.05 | 216-205 | 1000 |
| 2.5                                    | 14 | ● | 10  | 15   | 8   | 4.8 | 4.2 | 2.3  | 216-206 | 1000 |
| 4                                      | 12 | ○ | 12  | 16.8 | 9.5 | 5.4 | 4.8 | 2.9  | 216-207 | 1000 |
| 6                                      | 10 | ● | 14  | 20   | 12  | 6.8 | 6.2 | 3.5  | 216-208 | 1000 |
| 10                                     | 8  | ● | 16  | 21   | 12  | 8.1 | 7.5 | 4.6  | 216-209 | 1000 |
| 16                                     | 6  | ● | 23  | 28   | 18  | 9.6 | 8.8 | 5.8  | 216-210 | 500  |

|  |        |   |    |      |    |          |          |     |         |     |
|--|--------|---|----|------|----|----------|----------|-----|---------|-----|
| Twin ferrule; insulated; extra long for TOPJOB® S Rail-Mount Terminal Blocks |        |   |    |      |    |          |          |     |         |     |
| 2 x 1.0  | 2 x 18 | ● | 12 | 19.2 | 12 | 5.8x3.2  | 5.2x2.6  | 2   | 216-542 | 500 |
| 2 x 2.5  | 2 x 14 | ● | 12 | 21   | 12 | 8.0x4.5  | 7.2x3.7  | 2.8 | 216-545 | 100 |
| 2 x 4.0  | 2 x 12 | ○ | 12 | 22   | 12 | 9.0x5.2  | 8.0x4.2  | 3.5 | 216-546 | 200 |
| 2 x 6.0  | 2 x 10 | ● | 12 | 23   | 12 | 11.4x6.2 | 10.4x5.2 | 4.5 | 216-547 | 1   |

|  |    |  |    |    |  |     |  |      |         |      |
|--|----|--|----|----|--|-----|--|------|---------|------|
| Ferrule; uninsulated; in standard length |    |  |    |    |  |     |  |      |         |      |
| 0.25                                     | 24 |  | 5  | 5  |  | 1.7 |  | 0.75 | 216-151 | 5000 |
| 0.25                                     | 24 |  | 7  | 7  |  | 1.7 |  | 0.75 | 216-131 | 5000 |
| 0.34                                     | 24 |  | 5  | 5  |  | 1.7 |  | 0.85 | 216-152 | 5000 |
| 0.34                                     | 24 |  | 7  | 7  |  | 1.7 |  | 0.85 | 216-132 | 5000 |
| 0.5                                      | 22 |  | 6  | 6  |  | 2.1 |  | 1    | 216-121 | 5000 |
| 0.5                                      | 22 |  | 8  | 8  |  | 2.1 |  | 1    | 216-101 | 5000 |
| 0.75                                     | 20 |  | 6  | 6  |  | 2.3 |  | 1.2  | 216-122 | 5000 |
| 0.75                                     | 20 |  | 8  | 8  |  | 2.3 |  | 1.2  | 216-102 | 5000 |
| 1  | 18 |  | 6  | 6  |  | 2.5 |  | 1.4  | 216-123 | 5000 |
| 1  | 18 |  | 8  | 8  |  | 2.5 |  | 1.4  | 216-103 | 5000 |
| 1.5                                      | 16 |  | 6  | 6  |  | 2.8 |  | 1.7  | 216-124 | 5000 |
| 1.5                                      | 16 |  | 8  | 8  |  | 2.8 |  | 1.7  | 216-104 | 5000 |
| 2.5                                      | 14 |  | 10 | 10 |  | 3.4 |  | 2.2  | 216-106 | 5000 |
| 4  | 12 |  | 10 | 10 |  | 4   |  | 2.8  | 216-107 | 5000 |
| 6  | 10 |  | 12 | 12 |  | 4.7 |  | 3.5  | 216-108 | 1000 |
| 10                                       | 8  |  | 12 | 12 |  | 5.8 |  | 4.5  | 216-109 | 1000 |
| 16                                       | 6  |  | 12 | 15 |  | 7.5 |  | 5.8  | 216-110 | 500  |



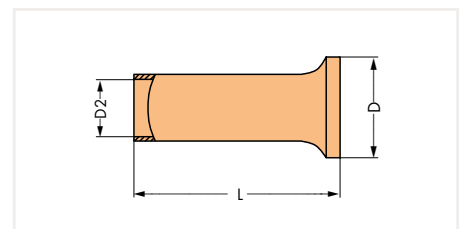
Insulated Ferrules  
For letters with the corresponding dimensions, see table opposite.



Wire bridge with twin ferrules



Uninsulated ferrules



Uninsulated ferrules



## Test and Measurement Device ▶ Test Plug ▶ Test Pin

### 206, 210, 735 Series



Testboy; non-contact voltage tester; with integrated flashlight; measures voltage from 12 to 1000 VAC

|  | Item No. | PU |
|--|----------|----|
|  | 206-804  | 1  |



Test plug; with 500 mm cable; 2 mm Ø; max. 42 V

| Color | Item No. | PU |
|-------|----------|----|
| ● red | 210-136  | 50 |



Test pin; 30 VAC / 60 VDC; Cat. 0; 6 mm uninsulated; test cable for soldering up to 0.5 mm<sup>2</sup>

| Ø    | Item No. | PU |
|------|----------|----|
| 1 mm | 735-500  | 1  |



Test probes; 1000 V; Cat. IV; 10 A

| Ø    | Item No. | PU |
|------|----------|----|
| 2 mm | 206-912  | 1  |



Test pin; 30 VAC / 60 VDC; Cat. 0; 10 mm uninsulated; test cable for soldering up to 0.5 mm<sup>2</sup>

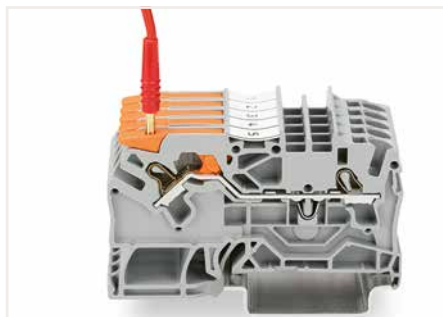
| Ø    | Item No. | PU |
|------|----------|----|
| 1 mm | 859-500  | 1  |

10

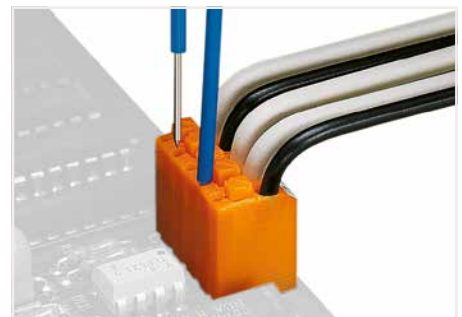


A device that will reliably detect AC voltage in cables, sockets, fuses, switches, outlets and other installations. Testboy can detect the following:

- Live conductors
- Cable breaks
- Blown fuses (in cartridges or holders)
- Defective switches
- Defective lamps in strings of lights



Testing with a 2 mm Ø test plug (max. 42 V).



Testing via 1 mm Ø test pin – touch contact.

Test Pin:

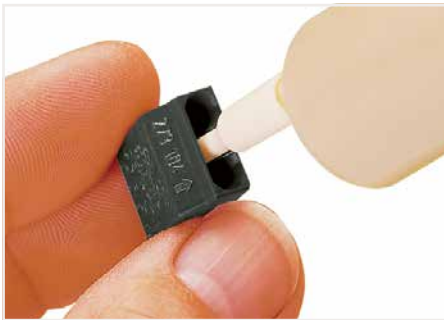
- Miniature test pin for sampling extremely small measuring points
- Shatter-proof grip, may be unscrewed
- The stainless steel tip easily penetrates insulation and oxide layers
- Solder connection up to 0.5 mm<sup>2</sup>

# "Alu-Plus" Contact Paste 249 Series



"Alu-Plus" syringe; contains 20 ml "Alu-Plus" contact paste; for reliable connection of solid aluminum conductors\* up to 4 mm<sup>2</sup> in WAGO spring-clamp terminal blocks

| Item No. | PU         |
|----------|------------|
| 249-130  | 20 (4 x 5) |



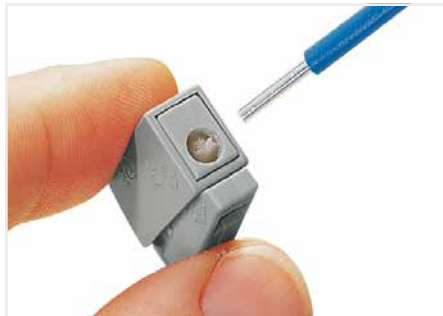
**WAGO Junction Box Connectors**  
Push nozzle of the "Alu-Plus" syringe into the center conductor entry hole of the WAGO Junction Box Connector.



**WAGO Lighting Connectors**  
Push the "Alu-Plus" syringe's nozzle into the circular entry first and then into the square conductor entry hole of the WAGO Lighting Connector.



Press plunger down until "Alu-Plus" is visible in the other holes.



Press the plunger down until "Alu-Plus" fills both entry holes.

### "Alu-Plus" Contact Paste

- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors.
- Provides long-term protection against corrosion.

\* Aluminum conductors per IEC 61545 standard, Class B, "Alloy 1370" with a tensile strength of 90 to 180 N/mm<sup>2</sup> and an elongation of 1 to 4 %

Use "Alu-Plus" contact paste when terminating solid aluminum conductors in WAGO spring-clamp terminal blocks.

"Alu-Plus" contact paste also allows WAGO spring-clamp terminal blocks to properly terminate solid aluminum conductors up to 4 mm<sup>2</sup>.

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, aluminum conductors must first be cleaned and then immediately be inserted into the clamping units filled with "Alu-Plus" contact paste.


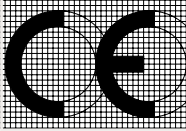

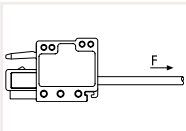





It is also possible to apply WAGO "Alu-Plus" additionally on the whole surface of the aluminum conductor before termination.

Please note that the nominal currents must be adapted to the reduced conductivity of the aluminum conductors: 2.5 mm<sup>2</sup> = 16 A, 4 mm<sup>2</sup> = 22 A.



# Technical Section

## Technical Section

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|  | Processing Information and Material Specifications<br>– Soldering Information<br>– Insulation Materials<br>– Contact Materials, Contact Plating, Clamping Spring Material<br>314            |
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## Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

### PUSH-IN CAGE CLAMP®



Push-in CAGE CLAMP® terminates the following copper conductors: solid



stranded



fine-stranded, also with tinned single strands



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

The universal connection with an additional advantage:

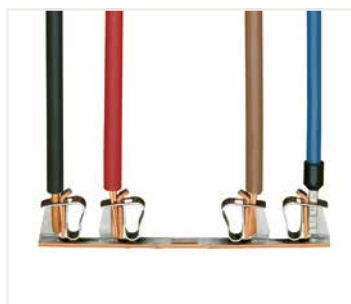
Push-in connection

Terminate solid and stranded (Class B 7 strands or less), as well as ferruled conductors, by simply pushing them in – no tools required.

Termination for all conductor types:

- Open clamping unit.
- Insert the conductor.
- Release clamp – done!

### CAGE CLAMP®



CAGE CLAMP® terminates the following copper conductors: solid



stranded



fine-stranded, also with tinned single strands



fine-stranded, tip-bonded



fine-stranded, with ferrule (gastight crimped)



fine-stranded, with pin terminal (gastight crimped)

The universal connection for solid, stranded and fine-stranded conductors

Termination:

- Open clamping unit.
- Insert the conductor.
- Release clamp – done!

## Operating WAGO Connection Technologies

Please follow the applicable product-specific termination instructions.

### POWER CAGE CLAMP®



POWER CAGE CLAMP terminates the following copper conductors: solid



stranded



fine-stranded, also with tinned single strands



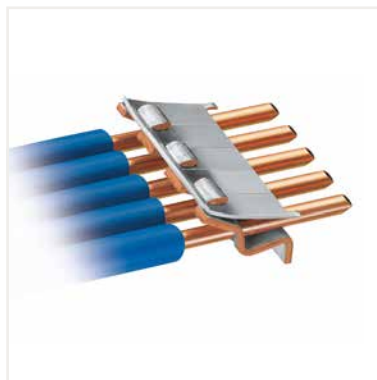
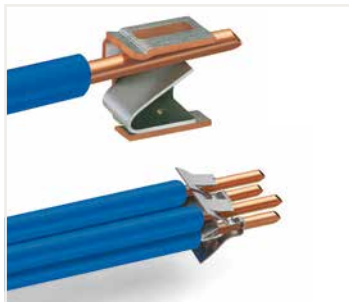
fine-stranded, with ferrule (gastight crimped)

The universal connection for conductors larger than 35 mm<sup>2</sup> (2 AWG)

Termination:

- Open clamp by turning a T-wrench counter-clockwise.
- Press the integrated latch to open clamping unit for hands-free wiring.
- Insert the conductor.
- A small counter-clockwise rotation closes the clamp, securing conductor.

### PUSH WIRE®



PUSH WIRE® terminates the following copper conductors: solid

PUSH WIRE® connection for solid and stranded conductors (depending on the model used)

Termination:

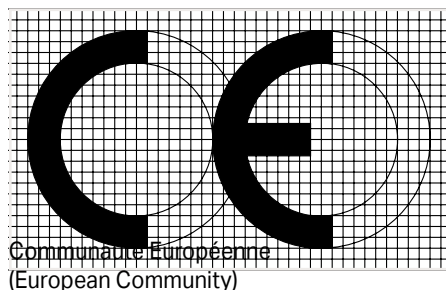
Tool-free, twist-free terminations for solid and rigid stranded conductors – simply push into the unit.



## CE Marking and EC Directives

### CE Conformity Marking:

The CE conformity marking consists of the characters "CE" with the following script:



**EC directives** are legally binding specifications for the European Union. Their goal is aligning legal and administrative specifications in the various EU member countries, in order to prevent trading hindrances arising from different national specifications.

In order to launch a product on the market, it must comply with the relevant directives. Several directives may apply for one single product, for example, EMC and low voltage directives.

The following EC directives apply to WAGO products:

#### 2014/35/EU

##### – Low Voltage Directive (LVD)

The LVD covers all electrical equipment operating with a voltage between 50 and 1000 VAC and between 75 and 1500 VDC.

This directive applies to products, such as rail-mount terminal blocks, splicing connectors, modular terminal blocks, terminal strips, etc., which comply with the specifications of the coordinated European standards and their specific parts (e.g., EN 60947 for rail-mount terminal blocks and EN 60998 for splicing connectors). The CE conformity marking must be applied to all electrical equipment; should on-unit marking not be possible, mark the smallest packaging unit. With this marking, manufacturers attest conformity of their products to relevant directives.

In addition to the CE marking, manufacturers provide an EC "Declaration of Conformity" for their products. This declaration of conformity must be retained and submitted to a national surveillance authority upon request.

#### 2014/30/EU

##### – EMC Directive

This directive applies to any devices, equipment and systems containing electric or electronic components. The German Federal Office for Post and Telecommunications (Bundesamt für Post und Telekommunikation, BAPT) is authorized to draw a distinction between elementary and complex components. Elementary components, such as resistors, transformers, ICs, relays, etc., are not provided with marking. For complex components, such as electro-motors, electronic cards, thermostats, etc., the EMC directives apply only if these components are sold directly to the end user.

All products subject to the application scope of the EMC directive must display the CE marking on their housing. This marking proves conformity with the corresponding standards.

#### 2006/42/EC

##### – Machinery Directive

This directive applies to complete machines or equipment.

The manufacturers of machines or equipment are, however, obliged to use components which meet the corresponding EC directives (e.g., Low Voltage or EMC Directives).

Fulfillment and conformity with these directives is required for the free exchange of goods within Europe.

#### 2014/34/EU

##### – ATEX Guideline

Explosion-proof devices – general technical information on electrical equipment used in hazardous areas



## IEC/EN Specifications

The following standards apply to the design and application of the terminal blocks and connectors contained in this catalog:

|   |  |   |
|---|--|---|
| IEC 60364-1<br>HD 60364-1<br>VDE 0100-100<br>/ Low-voltage electrical installations<br>- Part 1: Fundamental principles, assessment of general characteristics, definitions | safety "e"   | operated by ordinary persons (DBO)  |
| IEC 61140<br>EN 61140<br>VDE 0140-1<br>/ Protection against electric shock<br>- Common aspects for installation and equipment   | IEC 60079-11<br>EN 60079-11<br>VDE 0170-7<br>/ Hazardous areas –<br>- Part 11: Equipment protection by intrinsic safety "i"  | IEC 61643-11<br>EN 61643-11<br>VDE 0675-6-11<br>/ Low-voltage surge protective devices<br>- Part 11: Surge protective devices connected to low-voltage power systems<br>- Requirements and test methods   |
| IEC 60364-7-710<br>HD 60364-7-710<br>VDE 0100-710<br>- Part 7-710: Requirements for special installations or locations<br>- Medically used areas                            | IEC 60079-14<br>EN 60079-14<br>VDE 0165-1<br>/ Hazardous areas –<br>- Part 14: Electrical installations design, selection and erection   | IEC 60335-1<br>EN 60335-1<br>VDE 0700-1<br>/ Safety of household and similar electrical appliances<br>- Part 1: General requirements  |
| IEC 60364-7-718<br>HD 60364-7-718<br>VDE 0100-718<br>- Part 7-718: Requirements for special installations or locations<br>- Communal facilities and workplaces              | IEC 60079-15<br>EN 60079-15<br>VDE 0170-16<br>/ Explosive atmospheres –<br>- Part 15: Equipment protection by type of protection "n"   | IEC 60598-1<br>EN 60598-1<br>VDE 0711-1<br>/ Lighting fixtures<br>- Part 1: General requirements and tests  |
| EN 50110-1<br>VDE 0105-1<br>/ Operation of electrical installations<br>- Part 1: General requirements   | IEC 60038<br>EN 60038<br>VDE 0175-1<br>/ IEC CENELEC standard voltages   | IEC 60715<br>EN 60715<br>/ Standardized mounting on rails for mechanical support of electrical devices in switchgear and controlgear installations  |
| IEC 60664-1<br>EN 60664-1<br>VDE 0110-1<br>/ Insulation coordination for equipment with in low-voltage systems<br>- Part 1: Principles, requirements and tests              | VDE 0298-4<br>/ Application of cables and flexible cords in power installations<br>- Part 4: Recommended values for current carrying capacities of cables for fixed installation and for flexible cables   | IEC 60999-1<br>EN 60999-1<br>VDE 0609-1<br>/ Connecting devices – Electrical copper conductors<br>- Safety requirements for screw-type and screwless-type clamping units<br>- Part 1: General requirements and particular requirements for clamping units for conductors from 0.2 mm <sup>2</sup> up to 35 mm <sup>2</sup> (included) |
| IEC 60204-1<br>EN 60204-1<br>VDE 0113-1<br>/ Electrical equipment for machinery<br>- Part 1: General requirements   | IEC 60112<br>EN 60112<br>VDE 0303-11<br>/ Method for determining the comparative and the proof tracking indices of solid insulating materials  | IEC 60999-2<br>EN 60999-2<br>VDE 0609-101<br>- Part 2: General requirements and particular requirements for clamping units for conductors from 35 mm <sup>2</sup> up to 300 mm <sup>2</sup> (included)  |
| IEC 60079-0<br>EN 60079-0<br>VDE 0170-1<br>/ Hazardous areas<br>Part 0: Equipment<br>- General requirements   | IEC 60529<br>EN 60529<br>VDE 0470-1<br>/ Degrees of protection provided by enclosures (IP code)<br>- Testing equipment and testing method  |   |
| IEC 60079-7<br>EN 60079-7<br>VDE 0170-6<br>/ Explosive atmospheres –<br>- Part 7: Equipment protection by increased   | IEC 61439-1<br>EN 61439-1<br>VDE 0660-600-1<br>/ Low-voltage switchgear and control-gear assemblies<br>- Part 1: General rules<br>IEC 61439-3<br>EN 61439-3<br>VDE 0660-600-3<br>/ Low-voltage switchgear and controlgear assemblies<br>- Part 3: Distribution boards intended to be |   |

|   |   |
|---|---|
| IEC 60998-1<br>EN 60998-1<br>E VDE 0613-1<br>/ Connecting devices for low-voltage circuits<br>for household and similar purposes<br>- Part 1: General requirements              | / Connectors<br>- Safety requirements and tests<br><br>IEC 60512-1<br>EN 60512-1<br>/ Connectors for electronic equipment –<br>Tests and measurements<br>- Part 1: General  |
| IEC 60998-2-1<br>EN 60998-2-1<br>VDE 0613-2-1<br>- Part 2-1: Particular requirements for<br>connecting devices as separate entities with<br>screw-type clamping units           | IEC 60320-1<br>EN 60320-1<br>VDE 0625-1<br>/ Appliance couplers for household and<br>similar general purposes<br>- Part 1: General requirements                             |
| IEC 60998-2-2<br>EN 60998-2-2<br>VDE 0613-2-2<br>- Part 2-2: Particular requirements for<br>connecting devices as separate entities with<br>screwless-type clamping units       | IEC 60352-1<br>EN 60352-1<br>/ Solderless connections;<br>- Part 1: Wrapped connections<br>- General requirements,<br>test methods and practical guidance                   |
| IEC 60998-2-3<br>EN 60998-2-3<br>VDE 0613-2-3,<br>- Part 2-3: Particular requirements for<br>connecting devices as separate entities with<br>insulation-piercing clamping units | IEC 60352-2<br>EN 60352-2<br>/ Solderless connections;<br>- Part 2: Crimped connections<br>- General requirements,<br>test methods and practical guidance                   |
| IEC 60947-1<br>EN 60947-1<br>VDE 0660-100<br>/ Low-voltage switchgear and controlgear<br>- Part 1: General rules  | IEC 60352-3<br>EN 60352-3<br>- Part 3: Solderless accessible insulation<br>displacement connections<br>- General requirements, test methods and<br>practical guidance       |
| IEC 60947-7-1<br>EN 60947-7-1<br>VDE 0611-1<br>- Part 7-1: Ancillary equipment<br>Terminal blocks for copper conductors   | IEC 60352-4<br>EN 60352-4<br>- Part 4: Solderless non-accessible insula-<br>tion displacement connections<br>- General requirements, test methods and<br>practical guidance |
| IEC 60947-7-2<br>EN 60947-7-2<br>VDE 0611-3<br>- Part 7-2: Ancillary equipment<br>Protective conductor terminal blocks for<br>copper conductors                                 | IEC 60352-5<br>EN 60352-5<br>- Part 5: Press-in connections<br>- General requirements, test methods and<br>practical guidance   |
| IEC 60947-7-3<br>EN 60947-7-3<br>VDE 0611-6<br>- Part 7-3: Ancillary equipment<br>Safety requirements for<br>fuse terminal blocks   | IEC 60352-6<br>EN 60352-6<br>Part 6: Insulation piercing connections<br>- General requirements, test methods and<br>practical guidance                                      |
| IEC 60947-7-4<br>EN 60947-7-4<br>VDE 0611-4<br>- Part 7-4: Ancillary equipment –<br>PCB terminal blocks for copper conductors<br>IEC 61984<br>EN 61984<br>VDE 0627              | IEC 60352-7<br>EN 60352-7<br>- Part 7: Spring clamp connections<br>- General requirements, test methods and<br>practical guidance   |

## Tests and Testing Procedures per IEC/EN Standards

Products such as connecting devices, rail-mount terminal blocks and connectors, etc., have their own product-specific test specifications. The following sections describe the most important tests and are limited to a description of the test procedures and an explanation of the test purpose. The data shown (e.g., voltages, temperatures, forces) only serve as illustration and may differ depending on the test.

### Mechanical Tests

All WAGO products meet requirements for the following mechanical tests:

#### • Termination Requirements

##### Conductor Termination

Two WAGO connection systems are proven in the field of Spring Pressure Connection Technology:

The PUSH WIRE® connection for applications requiring solid conductors ranging from 0.2 ... 4 mm<sup>2</sup> / 0.28 ... 4 AWG (e.g., for lighting and building wiring, telecommunications, house communication or alarm systems).

The universal CAGE CLAMP® spring pressure connection for solid, stranded and fine-stranded conductors ranging from 0.08 ... 35 mm<sup>2</sup> (28 ... 2 AWG) and designed for a variety of industrial, electrical and electronic applications (e.g., fine-stranded conductors in the elevator industry, in power stations, in the chemical and automotive

industry, and aboard ships).

The **Push-in CAGE CLAMP® connection** takes universal CAGE CLAMP® connections further by allowing the termination of 0.2 ... 16 mm<sup>2</sup> (24 ... 6 AWG) solid, stranded and fine-stranded conductors (25 mm<sup>2</sup>/4 AWG only "f-st") and offering all the benefits and safety of the original CAGE CLAMP®. Furthermore, the Push-in CAGE CLAMP® connection technology allows solid, stranded and fine-stranded conductors with ferrules from 0.5 to 16 mm<sup>2</sup> (20 ... 6 AWG) to be terminated by simply pushing them in.

Fine-stranded conductors of a small or very small size are highly flexible, and deform when pushed against the conductor stop in terminal blocks. As a result, the conductor insulation – not the copper conductor – may

be clamped, causing intermittent contact or no contact at all.

In order to prevent conductor insulation from being inserted into the clamp, insulation stops are available, even providing protection for 0.08 mm<sup>2</sup> (28 AWG) conductors.

### Rated Cross-Sections and Connectable Conductors

I. Per IEC 60999-1 / EN 60999-1 / VDE 0609, Part 1, Table 1:

| Rated Cross-Section | Theoretical Largest Conductor Diameter |          |                   |                   |                |                           |                                 | Connectable Conductor |   |          |
|---------------------|--|----------|-------------------|-------------------|----------------|---------------------------|---------------------------------|-----------------------|---|----------|
|                     | Metric                                 |          |                   |                   | AWG            |                           |                                 |                       | Rigid   | Flexible |
|                     | Rigid                                  |          | Flexible          | Rigid             |                | Flexible                  |                                 |                       |   |          |
|                     | Solid                                  | Stranded |                   |                   | b)<br>Solid    | b)<br>Class B<br>Stranded | c)<br>Class I, K, M<br>Stranded |                       |   |          |
| mm <sup>2</sup>     | mm                                     | mm       | mm                | mm                | Conductor Size | mm                        | mm                              | mm                    |   |          |
| 0,2                 | 0,51                                   | 0,53     | 0,61              | 0,61              | 24             | 0,54                      | 0,61                            | 0,64                  | To be defined in the corresponding product standard |          |
| 0,34                | 0,63                                   | 0,66     | 0,8               | 0,8               | 22             | 0,68                      | 0,71                            | 0,8                   |   |          |
| 0,5                 | 0,9                                    | 1,1      | 1,1               | 1,1               | 20             | 0,85                      | 0,97                            | 1,02                  |   |          |
| 0,75                | 1,0                                    | 1,2      | 1,3               | 1,3               | 18             | 1,07                      | 1,23                            | 1,28                  |   |          |
| 1,0                 | 1,2                                    | 1,4      | 1,5               | 1,5               | –              | –                         | –                               | –                     |   |          |
| 1,5                 | 1,5                                    | 1,7      | 1,8               | 1,8               | 16             | 1,35                      | 1,55                            | 1,6                   |   |          |
| 2,5                 | 1,9                                    | 2,2      | 2,3 <sup>a)</sup> | 2,3 <sup>a)</sup> | 14             | 1,71                      | 1,95                            | 2,08                  |   |          |
| 4,0                 | 2,4                                    | 2,7      | 2,9 <sup>a)</sup> | 2,9 <sup>a)</sup> | 12             | 2,15                      | 2,45                            | 2,7                   |   |          |
| 6,0                 | 2,9                                    | 3,3      | 3,9 <sup>a)</sup> | 3,9 <sup>a)</sup> | 10             | 2,72                      | 3,09                            | 3,36                  |   |          |
| 10,0                | 3,7                                    | 4,2      | 5,1               | 5,1               | 8              | 3,34                      | 3,89                            | 4,32                  |   |          |
| 16,0                | 4,6                                    | 5,3      | 6,3               | 6,3               | 6              | 4,32                      | 4,91                            | 5,73                  |   |          |
| 25,0                | –                                      | 6,6      | 7,8               | 7,8               | 4              | 5,45                      | 6,18                            | 7,26                  |   |          |
| 35,0                | –                                      | 7,9      | 9,2               | 9,2               | 2              | 6,87                      | 7,78                            | 9,02                  |   |          |

NOTE: The diameters of the largest rigid and flexible conductors are based on Table 1 per IEC 60228 A and IEC 60344 and for AWG conductors on ASTM B172-71 [4], IECA Publication S-19-81 [5], IECA Publication S-66-524 [6] and IECA Publication S-66-516 [7].

a) Dimensions for Class 5 flexible conductors only (IEC 60228 A)

b) Nominal diameter + 5%

c) Maximum diameter for each of the three classes I, K, M + 5%

**In practical use, the conductor cross-sections are approximately 5% below the values stated in the table!**

The IEC 60999-1/EN 60999-1/VDE 0609 Part 1 Specification (Section 7.1) requires that:

**Clamping units must be able to connect unprepared conductors.**

Under normal operating conditions, direct clamping (i.e., directly connecting a conductor to the terminal block's current bar) provides optimal contact quality, because all risk factors arising from anti-splaying methods are prevented.

Occasionally, conductor anti-splaying protection may be required, including various methods (see illustrations below).

Special requirements apply only in special application areas exposed to extremely corrosive atmospheres.

In this case, we recommend using either solid copper conductors or fine-stranded copper conductors with properly crimped, tin-coated copper ferrules or copper pin terminals.

As with solid copper conductors, the fine strands are crimped into a dense inner core. Crimping prevents ingress of aggressive atmospheres (depending on the ppm concentration), which can diffuse into the conductor

bundle along the individual strands and deposit between individual strands and the clamping point.

**One Conductor per Clamping Unit**

A number of VDE specifications specify that **only one conductor must be connected per clamping unit** (e.g., DIN VDE 0611, Part 4, 02.91, Section 3.1.9). The same applies to the recommendations of the German Automotive Industry Association (VDA) "Supply specification for the electrical equipment of machines, mechanical installations and buildings in the automotive industry" according to Section 15.1.1.3; Draft 8.93.

Other VDE and EN specifications also recommend the connection of **only one conductor per clamping unit**, unless the clamping unit is specifically tested and approved for the connection of several conductors, for example:

- VDE 0609-1, 12.00/
- EN 60999-1:2000, Section 7.1
- VDE 0660, Part 600, 06.12
- EN 61439-1:2011, Section 8.6.3
- VDE 0113-1, 06.07/
- EN 60204-1:2006, Section 13.1.1

One conductor per clamping unit is therefore recommended to meet the safety requirements of these relevant specifications. This WAGO principle is the basis for a number of other technical and economic advantages:

- Each conductor may be terminated or removed without affecting previously connected conductors.
- Where re-wiring is required, only the conductor to be changed is removed from the clamping point, all other conductors remain safely clamped.
- Each conductor is clamped independently.
- Any conductor size combination can be connected.


WAGO provides 2-conductor terminal blocks and connectors to increase the number of clamping units.

II. Per IEC 60999-2 / EN 60999-2 / VDE 0609, Part 101, Table 1:


| Rated Cross-Section<br><br>mm <sup>2</sup> | Theoretical Largest Conductor Diameter |                                   |           |                      |                     | Connectable Conductor                                |          |
|--|--|-----------------------------------|-----------|----------------------|---------------------|--|----------|
|  | Metric                                 |                                   | AWG/Kcmil |                      |                     |  |          |
|  | Rigid Stranded<br>mm                   | Fine-Stranded <sup>a)</sup><br>mm | Gauge     | Rigid Stranded<br>mm | Fine-Stranded<br>mm | Rigid  | Flexible |
| 50   | 9,1                                    | 11                                | 0         | 9,64                 | 12,08               | To be defined in the corresponding product standard. |          |
| 70   | 11                                     | 13,1                              | 00        | 11,17                | 13,54               |  |          |
| 95   | 12,9                                   | 15,1                              | 000       | 12,54                | 15,33               |  |          |
| -  | -                                      | -                                 | 0000      | 14,08                | 17,22               |  |          |
| 120  | 14,5                                   | 17                                | 250       | 15,34                | 19,01               |  |          |
| 150  | 16,2                                   | 19                                | 300       | 16,8                 | 20,48               |  |          |
| 185  | 18,0                                   | 21                                | 350       | 18,16                | 22,05               |  |          |
| -  | -                                      | -                                 | 400       | 19,42                | 24,05               |  |          |
| 240  | 20,6                                   | 24                                | 500       | 21,68                | 26,57               |  |          |
| 300  | 23,1                                   | 27                                | 600       | 23,82                | 30,03               |  |          |

a) Dimensions for Class 5 flexible conductors only (IEC 60228A)


NOTE: The diameters of the largest rigid and flexible conductors are based on Table 1 and Table 3 per IEC 60228 A and, for AWG conductors on ASTM B 172-71 [1], IECA Publication S-19-81 [2], IECA Publication S-66-524 [3] and IECA Publication S-66-516 [7].




Tip-bonded conductor



Tin-plated copper ferrule (gas-tight crimped)



Ultronically bonded conductor



Crimped pin terminal (gas-tight), preferably made of copper with a tin-plated surface

Anti-splaying methods require a terminal block one size larger than the nominal cross-section of the conductor to be terminated.

**Ferruled conductor cross-sections specified for individual products are based on WAGO's Variocrimp square crimping technology.**

Gas-tight, crimped twin ferrules may be used, provided the ferrule is inserted all the way into the clamping unit and that there is a sufficient clearance and creepage distance between adjacent potentials.



## Tests and Testing Procedures per IEC/EN Standards (continued)

### Mechanical Tests (continued)

- Pull-Out Test per IEC/EN 60947-7-1, IEC/EN 60998-2-2, IEC/EN 60999-1

The pull-out test simulates the mechanical stress on the clamping unit when, for example, the installer pushes the conductor aside to better access/operate the adjacent clamping unit, or verifies if the conductor is connected properly by briefly pulling on it.

During the test, a pulling force is applied without jerking, for one minute, to the connected conductor. The pulling force is selected according to the cross-sectional area. The larger the cross-section of the conductor, the higher the pull-out force that is selected. For example, the pulling force is 40 N for a conductor having a cross-section of 1.5 mm<sup>2</sup> (16 AWG) and 100 N for a conductor with a cross-section of 16 mm<sup>2</sup> (6 AWG). The values specified by these standards are the same for both screw clamp and spring-clamp terminal blocks. During the test, the conductor must neither slip out of the clamping unit, nor break near the clamping unit.

#### Conductor Pull-Out Forces

The clamping units of screwless terminal blocks must withstand the pull-out forces as follows:

IEC 60947-1/EN 60947-1/VDE 0660-100, Table 5:

Low-voltage switchgear and controlgear – General rules

IEC 60947-7-1/EN 60947-7-1/VDE 0611-1, Rail-mount terminal blocks for copper conductors

IEC 60998-2-1/EN 60998-2-1/VDE 0613-2-1, Table 104

IEC 60998-2-2/EN 60998-2-2/VDE 0613-2-2, Table 103:

Connecting devices for low-voltage circuits for household and similar purposes – Particular requirements for connecting devices as separate entities with screw clamp or screwless terminal blocks

IEC 60999-1/EN 60999-1/VDE 0609-1, Table 3:

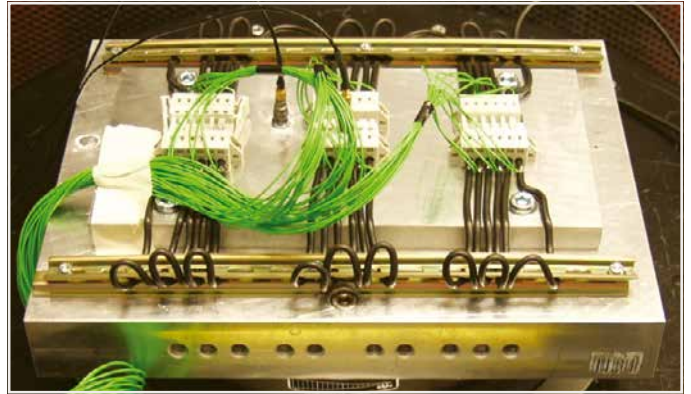
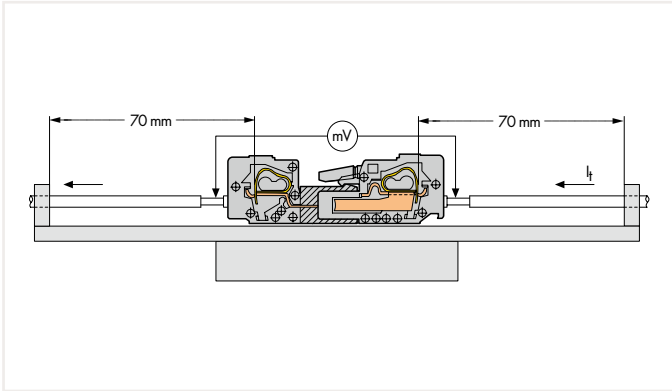
IEC 60999-2/EN 60999-2, /VDE 0609-101, Table 2:

Safety requirements for screw-clamp and screwless clamping units for electrical copper conductors

| Rated Cross-Section |           | Pull-Out Forces per IEC/EN |                |                 |
|---------------------|-----------|----------------------------|----------------|-----------------|
| mm <sup>2</sup>     | AWG/kcmil | 60947-7-1<br>N             | 60998-2-2<br>N | 60999-1/-2<br>N |
| 0,2                 | 24        | 10                         | 10             | 10              |
| 0,34                | 22        | 15                         | 15             | 15              |
| 0,5                 | 20        | 20                         | 20             | 20              |
| 0,75                | 18        | 30                         | 30             | 30              |
| 1,0                 | –         | 35                         | 35             | 35              |
| 1,5                 | 16        | 40                         | 40             | 40              |
| 2,5                 | 14        | 50                         | 50             | 50              |
| 4,0                 | 12        | 60                         | 60             | 60              |
| 6,0                 | 10        | 80                         | 80             | 80              |
| 10                  | 8         | 90                         | 90             | 90              |
| 16                  | 6         | 100                        | 100            | 100             |
| 25                  | 4         | 135                        | 135            | 135             |
| –                   | 3         | 156                        |                |                 |
| 35                  | 2         | 190                        | 190            | 190             |
| –                   | 1         | 236                        |                |                 |
| 50                  | 0         | 236                        |                | 236             |
| 70                  | 00        | 285                        |                | 285             |
| 95                  | 000       | 351                        |                | 351             |
| –                   | 0000      | 427                        |                | 427             |
| 120                 | 250       | 427                        |                | 427             |
| 150                 | 300       | 427                        |                | 427             |
| 185                 | 350       | 503                        |                | 503             |
| –                   | 400       | 503                        |                | 503             |
| 240                 | 500       | 578                        |                | 578             |
| 300                 | 600       | 578                        |                | 578             |

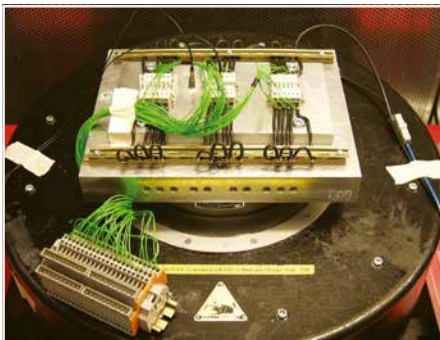
- Shock/Vibration Test per IEC/EN 60068-2-6; DNV GL, LR (Marine Applications); IEC/EN 61373 (Railway Applications)

The vibration test determines whether vibrations, such as those produced in the vicinity of machines or in vehicles, will permanently affect the electrical connection, or if contact breaks will occur during vibrations. Using a vibration table, the test specimen is subjected to vibration in each of the X, Y and Z axes (see pictures). The amplitude, acceleration and, in particular, the frequency of the vibration must vary during the test.

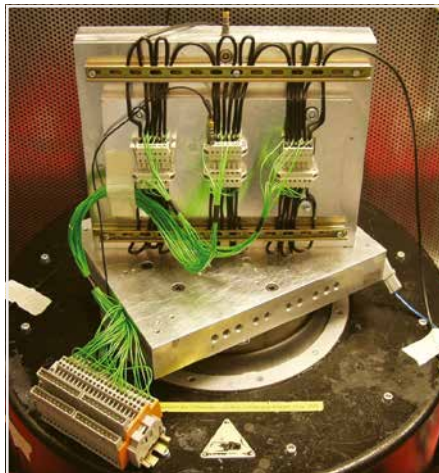


The "open length" of the conductor up to the point where the conductor is attached in the application must be kept as short as possible (length = 70 mm in this example).

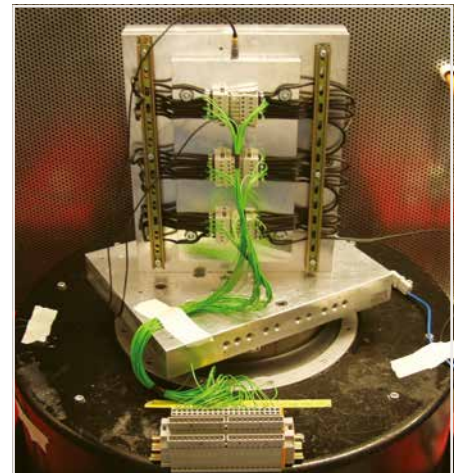
1. Axis



2. Axis



3. Axis



The exact test procedure may vary considerably, depending on how the product will be used.

| Application Examples per IEC/EN 60068-2-6  | Associated Test Levels |   |
|--|------------------------|---|
| Devices attached to heavy, rotating machines   | 1 ... 35 Hz,           | 50 m/s <sup>2</sup> (5g) or<br>100 m/s <sup>2</sup> (10g) |
| Devices designed for use in large-scale power plants and general industrial applications   | 10 ... 55 Hz,          | 20 m/s <sup>2</sup> (2g)<br>50 m/s <sup>2</sup> (5g)      |
| Devices designed for use in large-scale power plants and general industrial applications if it has been determined that detectable vibration components greater than 55 Hz exist | 10 ... 150 Hz,         | 20 m/s <sup>2</sup> (2g)<br>50 m/s <sup>2</sup> (5g)      |

Some test specifications require the determination of possible resonant frequencies, i.e., determining if resonance occurs within the frequency spectrum to be passed through. Analyzing the specimen behavior under the influence of resonant frequencies is performed using a special testing procedure.

## Tests and Testing Procedures per IEC/EN Standards (continued)

### Mechanical Tests (continued)

Beyond these standard procedures, each market segment performs additional testing. Examples include railway authorities testing rolling electrical equipment, or the testing performed multiple marine agencies (e.g., DNV GL Group, Lloyd's Register of Shipping). Though the requirements of such testing procedures are particularly demanding, test arrangements are identical for all of them. During vibrations, possible contact breaks are monitored on an oscilloscope. Voltage drop is measured before and after the test to detect permanent failures, i.e., checking if electrical resistance at the clamping unit has not increased beyond the permissible limit. The smaller this value is, the smaller the contact resistance of the clamping unit.

The test is passed if:

- the conductor has neither slipped out of the terminal block nor been damaged
- the maximum permissible voltage drop has not been exceeded
- and neither contact breaks have occurred nor a defined break time has been exceeded.

The test specimen must not be damaged in any way that might affect future use.

Since their inception, both CAGE CLAMP® and Push-in CAGE CLAMP® connections have been routinely tested for their resistance to shock/vibration in connection with approval tests.

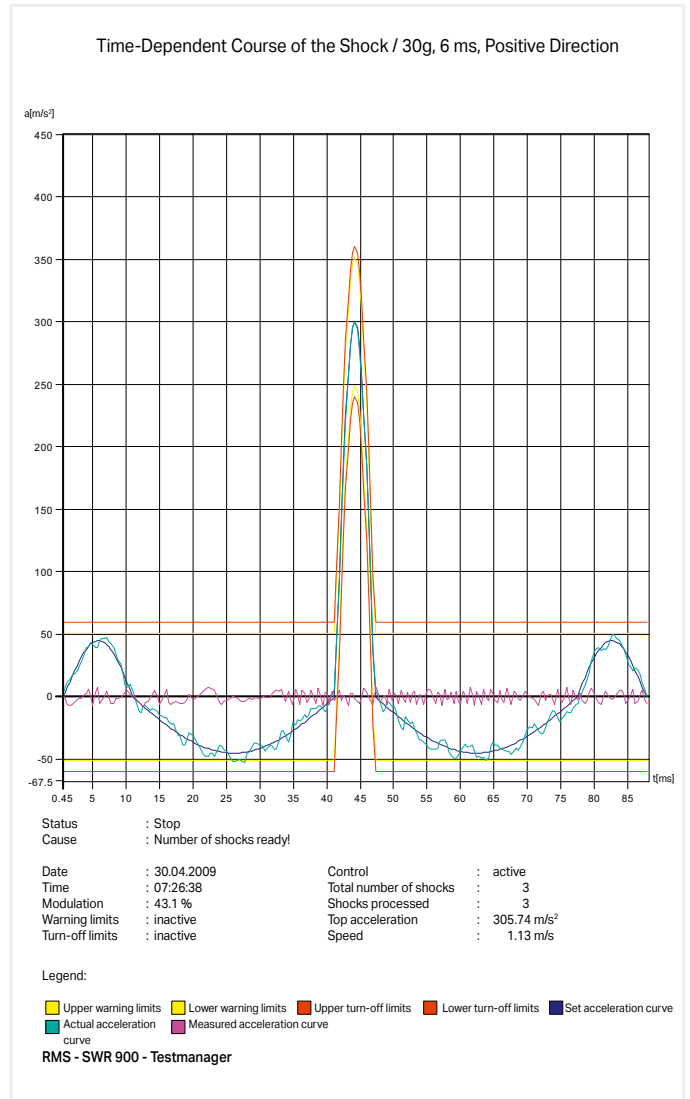
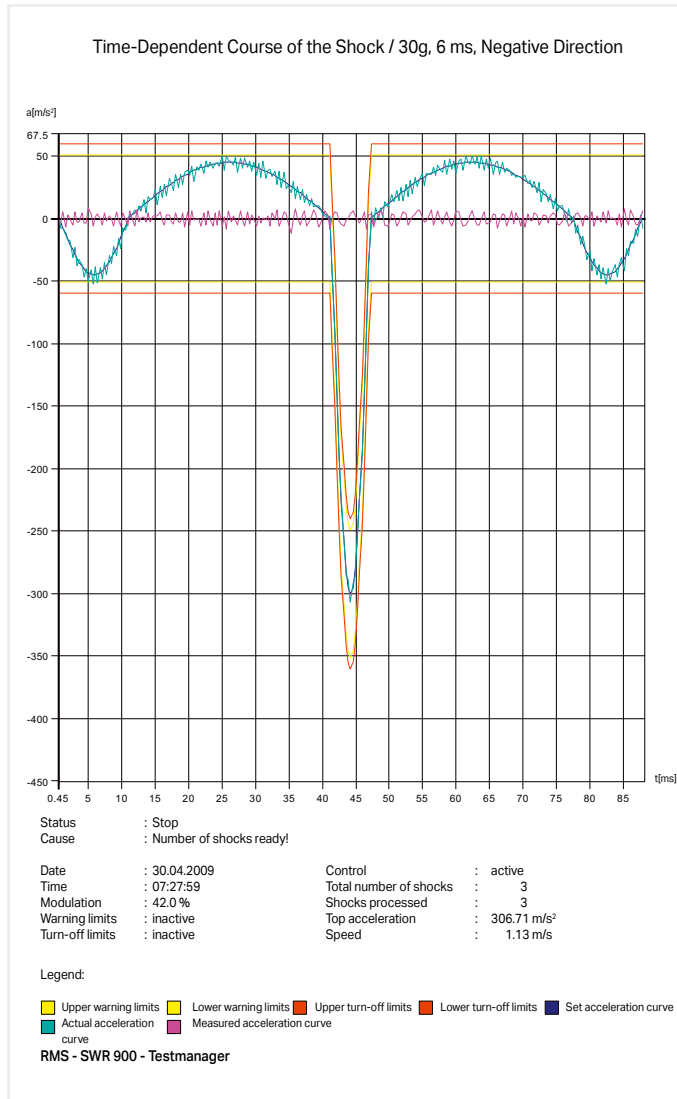
Notes:

These test results are based solely on tests conducted under "laboratory conditions." Connector usage in actual applications must be evaluated by the user.

• Shock Test per IEC/EN 60068-2-27; IEC/EN 61373 (Railway Applications)

The shock test is similar to the vibration test except that, instead of continuous vibrations, single shocks are applied to the specimen. Shock tests are usually performed with an acceleration of 15g, for example, over a period of 11 ms. Tests for special requirements often call for much higher values. Like the vibration tests, shock tests are primarily used to test the voltage drop variation or contact breaks, etc.

E.g.: **Shock requirement**  
 per IEC/EN 60068-2-27 (half-sine shock)  
 30g acceleration, 6 ms duration  
 Shock direction: 3 axes (3 shocks each in positive and negative direction)



## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests

All WAGO products meet requirements for the following electrical tests:

- Temperature-Rise Test per IEC/EN 61984, IEC/EN 60947-7-1, IEC/EN 60998-1

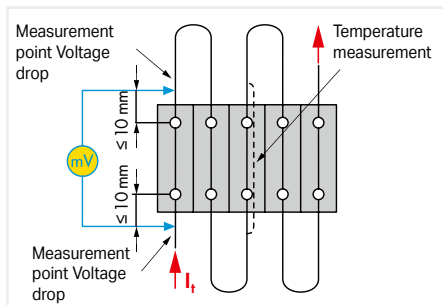
The temperature-rise test examines the clamping unit – including the surrounding insulation – at rated current, over-current and short-circuit current levels.

Unless otherwise specified in the related equipment specification, e.g., by specifying the nominal currents of the equipment, terminal blocks and connectors are tested with current loads as specified in the respective construction specification.

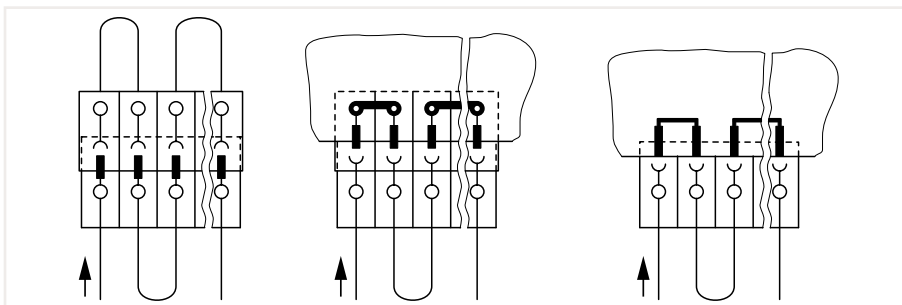
For rail-mount terminal blocks complying with IEC 60947-7-1/EN 60947-7-1/VDE 0611-1, or splicing connectors complying with IEC 60998-1/EN 60998-1/VDE 0613-1, the temperature rise must not exceed 45 Kelvin.

Connectors must withstand the upper and lower values of the temperature range specified in the type specification or manufacturer’s specification.

The sum of the ambient temperature and the temperature rise of a connector must not exceed the upper temperature limit.



Test arrangement: “Temperature-Rise Test” per IEC/EN 60947-7-1



Test arrangement: “Temperature-Rise Test” per IEC/EN 61984

| Rated Cross-Section | Test Current per IEC/EN |                 | Conductor Size | Test Current per IEC/EN 60947-7-1 Table 5 |
|---------------------|-------------------------|-----------------|----------------|---|
|                     | 60947-7-1 Table 4       | 60998-1 Table 2 |                |   |
| mm <sup>2</sup>     | A                       | A               | AWG/kcmil      | A   |
| 0,2                 | 4,0                     | 4,0             | 24             | 4   |
| 0,34                | 5,0                     | 5,0             | 22             | 6   |
| 0,5                 | 6,0                     | 6,0             | 20             | 8   |
|                     | 9,0                     | 9,0             |                |   |
| 1,0                 | 13,5                    | 13,5            | 16             | 16  |
|                     | 17,5                    | 17,5            |                |   |
| 2,5                 | 24                      | 24              | 14             | 22  |
|                     | 32                      | 32              |                |   |
| 6,0                 | 41                      | 41              | 10             | 38  |
|                     | 57                      | 57              |                |   |
| 16                  | 76                      | 76              | 8              | 50  |
|                     | 101                     | 101             |                |   |
| 35                  | 125                     | 125             | 6              | 67  |
|                     | -                       | -               |                |   |
| 50                  | 150                     | -               | 4              | 90  |
|                     | 192                     | -               |                |   |
| 95                  | 232                     | -               | 2              | 121                                       |
|                     | -                       | -               |                |   |
| 120                 | 269                     | -               | 1              | 139                                       |
|                     | 309                     | -               |                |   |
| 185                 | 353                     | -               | 0              | 162                                       |
|                     | 415                     | -               | 00             | 185                                       |
| 300                 | 520                     | -               | 000            | 217                                       |
|                     | -                       | -               | 0000           | 242                                       |
| -                   | -                       | -               | 250 kcmil      | 271                                       |
| -                   | -                       | -               | 300 kcmil      | 309                                       |
| -                   | -                       | -               | 350 kcmil      | 353                                       |
| -                   | -                       | -               | 500 kcmil      | 415                                       |
| -                   | -                       | -               | 600 kcmil      | 520                                       |

- Current-Carrying Capacity Curve (Derating Curve) per EN 60512-5-2

Both the design requirements (e.g., dimensions) and the current-carrying capacity of a connector must be checked by the user when selecting connectors.

This information depends on the following factors: conductor size, ambient temperature, number of simultaneously loaded poles, internal resistance of the connector, PCB layout, width and thickness of the printed circuits and connector materials.

A current-carrying capacity curve (basic curve) is determined based on the EN 60512-5-2 standard, accounting for the upper temperature limit.

The relationship between current, ambient temperature and temperature rise up to the connector's upper temperature limit is illustrated via current-carrying capacity curve (derating curve, reduction factor: 0.8).

The connector must only be operated up to this temperature limit (sum of the self-generated heat and the ambient temperature) without being damaged or destroyed during operation.

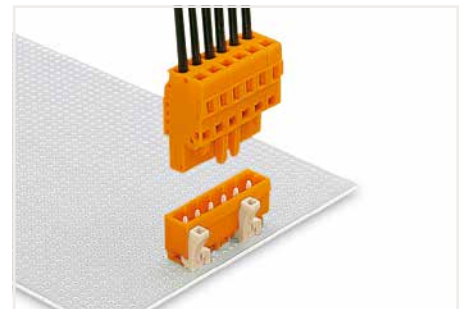
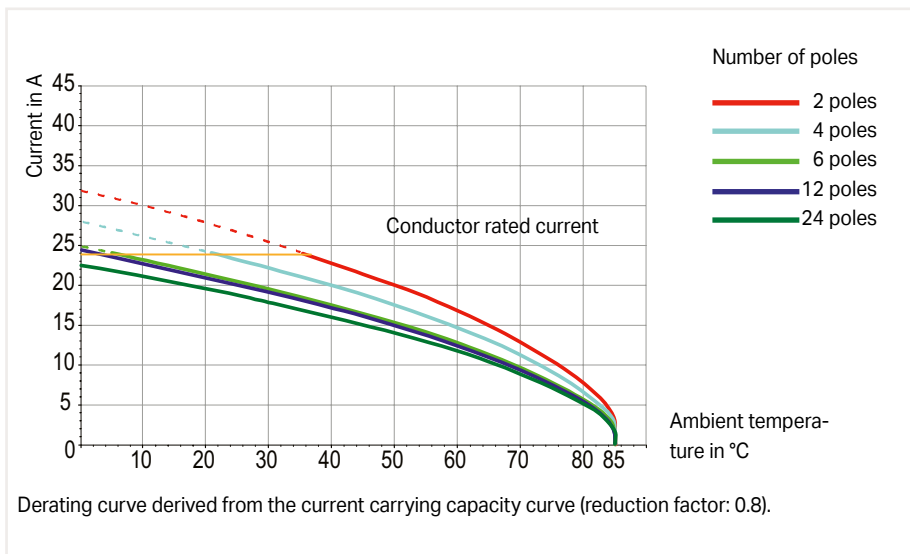
**The nominal current figures given for the WAGO PCB Connectors are based on the maximum number of poles, the maximum conductor cross-section and a maximum temperature rise of 45 K.**

Note: Current-carrying capacity curves merely document the self-generated heat of the connectors and terminal blocks under defined test conditions (conductor length, commoning of solder pins).

Usability of the components in actual applications must be investigated by the user.

Functioning of a current-carrying capacity curve (derating curve) per EN 60512-5-2 is shown by an application using a derating curve for the *MULTI CONNECTION SYSTEM (MCS)*:

This application requires each pole of a 4-pole connector be subjected to a load of 20 A. Based on the derating curve determined for this pole number with a conductor cross-section of 2.5 mm<sup>2</sup>, it has been determined the maximum ambient temperature is 39°C (102.2°F). The current must be reduced at higher ambient temperatures, e.g., to 11 A at an ambient temperature of 70°C (158°F).



Male header with straight solder pins and female connector with CAGE CLAMP® connection

The non-reduced current-carrying capacity curves (basic curves, reduction factor: 1) can be used when selecting WAGO's PCB terminal blocks!

The nominal current values given are based on a 4-pole PCB terminal strip with a temperature rise of 45 K.



Example: 4-pole PCB terminal strip (2706 Series)

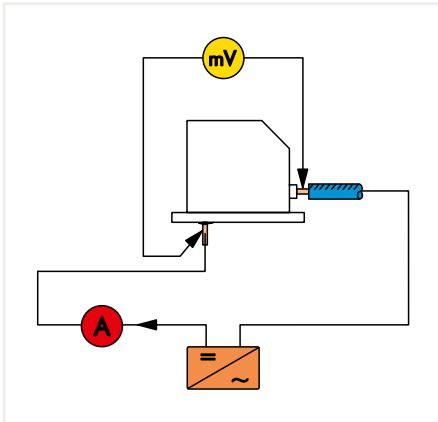


## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests (continued)

- Voltage Drop Test per IEC/EN 60947-7-1, IEC/EN 60999-1

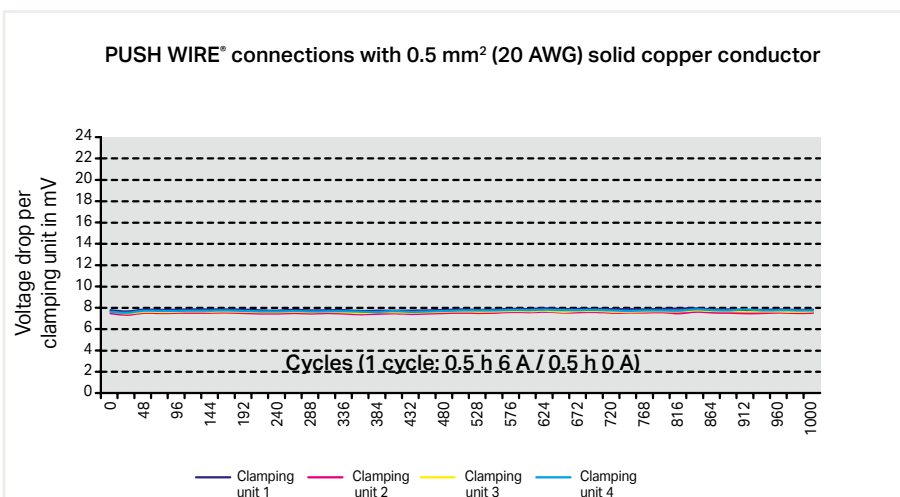
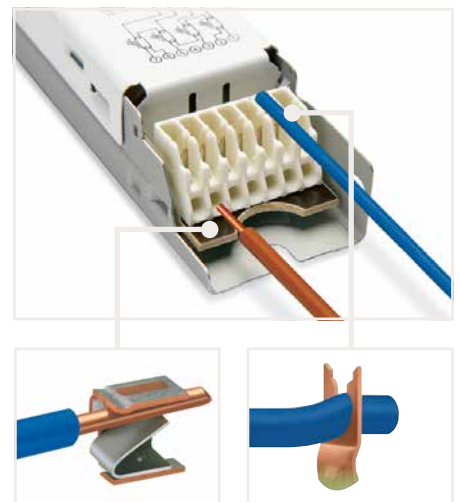
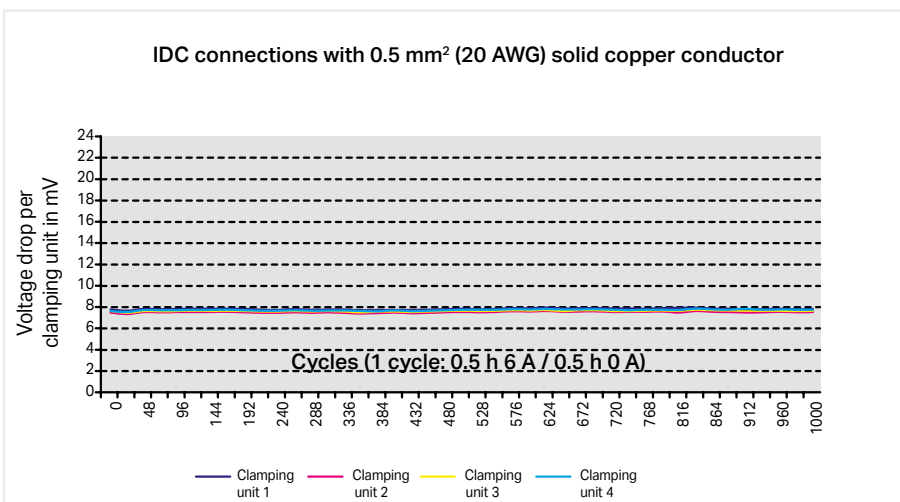
The voltage drop test evaluates clamping point quality under stress such as vibration, temperature change, industrial climate and salt spray, in order to verify that the contact point is gas-tight.



Test arrangement: "Voltage Drop Test"

Example: Current load cycling test result for Combi PCB terminal blocks with IDC and PUSH WIRE® connections

Voltage drop variation over longer periods under current load cycling conditions is shown for 251-3xx Combi PCB Terminal Blocks using solid copper conductors. The diagram shows that the voltage drop is constant, far beyond the 192 cycles required in IEC/EN 60998-2-2.



(The voltage drop was determined at the rated current.)

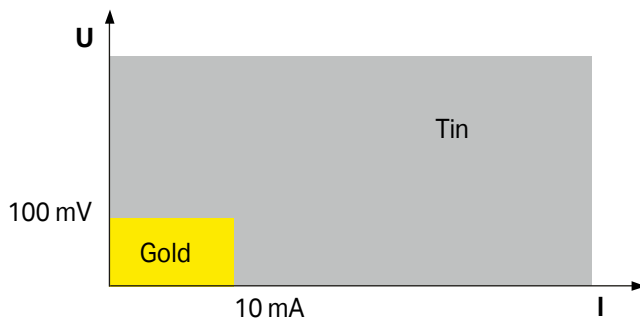
#### • Minimum Current / Specialty Connector Applications

The contact surfaces of WAGO's connectors are tin-plated. This surface exhibits excellent conductivity, along with outstanding protection against corrosion. Pollution layer deposits may penetrate this pure tin coating when the contacts are connected, lowering contact resistance.

The following information regarding proper selection of suitable WAGO components should be considered for applications in which connectors are used with minimal current and voltage levels and under harsh conditions, involving, for example, temperature, aggressive gases, vibration and shock.

Signal corruption may occur in applications with minimal current and voltage levels under the special conditions cited above. In such cases, we recommend using gold-plated contacts. Here, the user must always examine the suitability of the connectors for the application at hand.

The diagram below is based on practical experience.



WAGO also offers connectors with gold-plated contacts upon request.

Fig.: Selection of surface properties for special conditions

## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests (continued)

#### • Insulation Parameters per IEC/EN 60664-1

#### Clearances and Creepage Distances

The following generally applies:

The equipment specification contains data for the measurement of clearances and creepage distances, or refers to the data contained in the new revised edition of the basic standard DIN EN 60664-1/VDE 0110-1.

This standard contains new clearances and creepage distances in compliance with insulation coordination requirements. That is, the insulation parameters of equipment are assigned to:

- the anticipated surge voltages
- the parameters of the protection device against surge voltage and
- the anticipated environmental conditions and the protection measures against pollution.

This standard is based on IEC 60604-1.

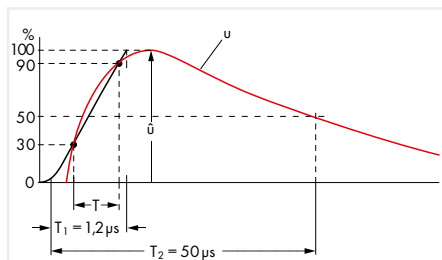
#### Clearances, Rated Surge Voltages, Overvoltage Categories, Pollution Degrees

Surge voltages (Table 1) are a decisive factor in determining clearances.

The basis forms the **overvoltage category**, i.e., the allocation of the equipment to the expected overvoltage, **and the conductor-ground voltage derived from the rated line voltage in installations with a grounded Y (star) point.**

In ungrounded installations, or installations where the conductor is not grounded, the voltage between conductors is applicable in the same way as conductor voltage to ground.

- ❶ Voltage pulse: 1.2/50  $\mu$ s



per DIN EN 60060-1/VDE 0432-1

#### Overvoltage Categories for Electrical Equipment:

A specific overvoltage category must be defined on the basis of the following, general description:

- Equipment in overvoltage category I is intended to be connected to the fixed electrical installations of buildings. Protective means are taken outside the equipment – either in the fixed installation or between the fixed installation and the equipment – to limit transient overvoltages to the specific level.
- Equipment in overvoltage category II is to be connected to the fixed electrical installations of buildings.  
Note: Examples of such equipment are household appliances, portable tools and similar loads.
- Equipment in overvoltage category III is part of the fixed electrical installations and other equipment where a higher degree of availability is expected.  
Note: Examples of such equipment are distribution boards, circuit breakers, wiring systems (IEV 826-16-08, including cables, bus bars, junction boxes, switches, socket outlets) in the fixed installation and equipment for industrial use and other equipment, e.g., stationary motors with permanent connection to the fixed installation.
- Equipment in overvoltage category IV is for use in or near the feed-in of electrical building installations upstream of the main distribution board in the direction of the network.  
Note: Examples include electricity meters, primary overcurrent protection devices and ripple control units.

The rated surge voltage must be selected from Table F.1 corresponding to the overvoltage category specified and to the rated voltage of the equipment.

Table F.1 – Rated Surge Voltage for Equipment Energized Directly from the Low-Voltage Mains (DIN EN 60664-1/VDE 0110-1)

- ❶ Voltage type: 1.2/50  $\mu$ s per DIN EN 60060-1/VDE 0432-1

| Nominal voltage of the supply system <sup>1)</sup> (mains) per IEC 60038 <sup>2)</sup> |                | Conductor-to-neutral voltage, derived from the nominal AC or DC voltage up to and including:<br>V | Rated surge voltage <sup>2)</sup>  |      |       |       |
|--|----------------|---|------------------------------------|------|-------|-------|
| Three-phase V  | Single-phase V |   | Overvoltage category <sup>4)</sup> |      |       |       |
|  |                |   | I V                                | II V | III V | IV V  |
|  |                | 50  | 330                                | 500  | 800   | 1500  |
|  |                | 100   | 500                                | 800  | 1500  | 2500  |
|  | 120 ... 240    | 150 <sup>5)</sup>   | 800                                | 1500 | 2500  | 4000  |
| 230/400 277/480  |                | 300   | 1500                               | 2500 | 4000  | 6000  |
| 400/690  |                | 600   | 2500                               | 4000 | 6000  | 8000  |
| 1000   |                | 1000  | 4000                               | 6000 | 8000  | 12000 |

<sup>1)</sup> See Annex B for application to existing different low-voltage mains and their nominal voltages.

<sup>2)</sup> Equipment with these rated impulse voltage levels can be used in installations complying with IEC 60364-4-443.

<sup>3)</sup> The / mark indicates a 3-phase, 4-conductor system. The lower value is the conductor-to-neutral voltage, while the higher value is the conductor-to-conductor voltage. Where only one value is indicated, it refers to 3-phase, 3-conductor systems and specifies the conductor-to-conductor voltage.

<sup>4)</sup> See 4.3.3.2.2 for an explanation of the overvoltage categories.

<sup>5)</sup> The nominal voltages for single-phase systems in Japan are 100 V or 100 ... 200 V. The value for the rated impulse voltage is, however, derived from the voltage gaps conductor-to-neutral for a voltage level of 150 V (see Annex B).

The nominal supply voltage and the corresponding rated impulse voltage values apply for grounded and ungrounded circuits.

• Insulation Parameters per IEC/EN 60664-1 (continued)

### Pollution Degrees

Pollution factors are all solid, liquid or gaseous foreign matter which may reduce the dielectric strength or the specific surface resistance. Factors are divided into four classes based on expected environmental conditions:

|                     |  | Examples of pollution degrees for assigned areas:   |
|---------------------|--|---|
| Pollution degree 1: | No pollution, or only dry, non-conductive pollution occurs. Pollution has no influence.                                | Open, unprotected insulated equipment in air-conditioned or clean, dry rooms  |
| Pollution degree 2: | Only non-conductive pollution occurs. Occasional, temporary conductivity caused by condensation can also be expected.  | Open, unprotected insulated equipment in occupied areas, shops, laboratories, mechanical workshops and medical rooms.               |
| Pollution degree 3: | Conductive pollution occurs, or dry, non-conductive pollution occurs which will become conductive due to condensation. | Open, unprotected insulated equipment in industrial, business and farming areas ( e.g., unheated rooms, workshops and boiler rooms) |
| Pollution degree 4: | The pollution generates persistent conductivity caused by conductive dust, rain or wet conditions.                     | Open, unprotected insulated equipment for outdoor use   |

### Dimensioning Clearances

See Table F.2 for specifications per DIN EN 60664-1/ VDE 0110, Part 1. Select the minimum clearances in accordance with the rated surge voltages and pollution degrees. To maximize the operating life of the equipment, do not go below these minimum clearances.

Table F.2 contains a list of information for Case A, the inhomogeneous field and for Case B, the homogeneous field. This involves an electric field with essentially constant (Case B) or non-constant (Case A) voltage gradients between the electrodes.

**Equipment with a clearance that is dimensioned per Case A, in other words rated for the most unfavorable case, requires no verification by the impulse voltage test.**

Equipment with a clearance that is dimensioned per Case B, or between A and B, requires verification by the impulse voltage test.

The clearances shown in Table F.2 are applicable for an installation height of up to 2000 m above sea level.

Values for clearances above 2000 m must be multiplied by a high correction factor in accordance with Table A.2.

**Table F.2 – Clearances to Withstand Transient Overvoltages**  
DIN EN 60664-1 / VDE 0110-1

| Required Impulse Withstand Voltage <sup>1)5)</sup><br>kV | Minimum Clearances in Air up to 2000 m Above Sea Level |                     |                   |  |                     |                   |
|--|--|---------------------|-------------------|--|---------------------|-------------------|
|  | Case A<br>Inhomogeneous Field (see 3.15)               |                     |                   | Case B<br>Homogeneous Field (see 3.14) |                     |                   |
|  | Pollution Degree <sup>6)</sup>                         |                     |                   | Pollution Degree <sup>6)</sup>         |                     |                   |
|  | 1<br>mm  | 2<br>mm             | 3<br>mm           | 1<br>mm                                | 2<br>mm             | 3<br>mm           |
| 0.33 <sup>2)</sup>                                       | 0,01   | 0.2 <sup>3)4)</sup> | 0.8 <sup>4)</sup> | 0,01                                   | 0.2 <sup>3)4)</sup> | 0.8 <sup>4)</sup> |
| 0.40   | 0,02   |                     |                   | 0,02                                   |                     |                   |
| 0.50 <sup>2)</sup>                                       | 0,04   |                     |                   | 0,04                                   |                     |                   |
| 0.60   | 0,06   |                     |                   | 0,06                                   |                     |                   |
| 0.80 <sup>2)</sup>                                       | 0,10   |                     |                   | 0,10                                   |                     |                   |
| 1,0  | 0,15   |                     |                   | 0,15                                   |                     |                   |
| 1,2  | 0,25   | 0,25                | 0,2               | 0,3                                    | 0,45                | 0,60              |
| 1.5 <sup>2)</sup>  | 0,5  | 0,5                 | 0,3               |  |                     |                   |
| 2,0  | 1,0  | 1,0                 | 1,0               | 0,45                                   | 0,60                | 0,80              |
| 2.5 <sup>2)</sup>  | 1,5  | 1,5                 | 1,5               | 0,60                                   | 0,80                | 1,2               |
| 3,0  | 2,0  | 2,0                 | 2,0               | 0,80                                   | 1,2                 | 1,5               |
| 4.0 <sup>2)</sup>  | 3,0  | 3,0                 | 3,0               | 1,2                                    | 1,5                 | 2,0               |
| 5,0  | 4,0  | 4,0                 | 4,0               | 1,5                                    | 2,0                 | 3,0               |
| 6.0 <sup>2)</sup>  | 5,5  | 5,5                 | 5,5               | 2,0                                    | 3,0                 | 4,5               |
| 8.0 <sup>2)</sup>  | 8,0  | 8,0                 | 8,0               | 3,0                                    | 4,5                 | 6,0               |
| 10   | 11   | 11                  | 11                | 3,5                                    | 5,5                 | 8,0               |
| 12 <sup>2)</sup>   | 14   | 14                  | 14                | 4,5                                    | 6,0                 | 10                |
| 15   | 18   | 18                  | 18                | 5,5                                    | 8,0                 | 12,5              |
| 20   | 25   | 25                  | 25                | 8,0                                    | 10                  | 17                |
| 25   | 33   | 33                  | 33                | 10                                     | 12,5                | 22                |
| 30   | 40   | 40                  | 40                | 12,5                                   | 17                  | 27                |
| 40   | 60   | 60                  | 60                | 17                                     | 22                  | 35                |
| 50   | 75   | 75                  | 75                | 22                                     | 27                  | 45                |
| 60   | 90   | 90                  | 90                | 27                                     | 35                  | 45                |
| 80   | 130  | 130                 | 130               | 35                                     | 45                  | 45                |
| 100  | 170  | 170                 | 170               | 45                                     | 45                  | 45                |

<sup>1)</sup> This voltage is for: Functional insulation: the maximum impulse voltage expected to occur across the clearance (see 5.1.5)

– Basic insulation directly exposed to or significantly influenced by transient overvoltages from the low-voltage mains (see 4.3.3.3, 4.3.3.4.1 and 5.1.6): the rated impulse voltage for the equipment;

– Other basic insulation (see 4.3.3.4.2): the highest impulse voltage that can occur in the circuit For reinforced insulation, see 5.1.6.

<sup>2)</sup> Preferred values specified in 4.2.3

<sup>3)</sup> For printed wiring material, the values for pollution degree 1 apply, except that the value must not be less than 0.04 mm, as specified in Table F.4.

<sup>4)</sup> The minimum clearances given for pollution degree 2 and 3 are based on the reduced withstand characteristics of the associated creepage distance under humidity conditions (see IEC 60664-5).

<sup>5)</sup> For parts or circuit within equipment subject to surge voltages based on 4.3.3.4.2, interpolation of values is allowed. However, standardization is achieved by using the preferred series of impulse voltage values based on 4.2.3.

<sup>6)</sup> The dimensions for pollution degree 4 are as specified for pollution degree 3, except that the minimum clearance is 1.6 mm.

## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests (continued)

**Table A.2:**  
Altitude Correction Factors  
(DIN EN 60664-1/VDE 0110-1)

| Altitude<br>m | Standard<br>Air Pressure<br>(in kPa) | Multiplier for<br>clearances |
|---------------|--------------------------------------|------------------------------|
| 2000          | 80                                   | 1                            |
| 3000          | 70                                   | 1,14                         |
| 4000          | 62                                   | 1,29                         |
| 5000          | 54                                   | 1,48                         |
| 6000          | 47                                   | 1,7                          |
| 7000          | 41                                   | 1,95                         |
| 8000          | 35,5                                 | 2,25                         |
| 9000          | 30,5                                 | 2,62                         |
| 10000         | 26,5                                 | 3,02                         |
| 15000         | 12                                   | 6,67                         |
| 20000         | 5,5                                  | 14,5                         |



### Creepage Distances, Rated Voltages, Material Groups

Criteria for dimensioning creepage distances are the rated voltages, pollution degrees and material groups.

The pollution degrees specified for the clearances, and its quoted allocation to locations, is also applicable for creepage distances.

Tables F.3 a and F.3 b of DIN EN 60664-1/ VDE 0110-1 contain the rated voltages that have to be considered for dimensioning the minimum creepage distances..

**Table F.3a – Single-Phase, 3- or 2-Conductor, AC or DC Systems**

| Nominal Voltage of the Power Supply System (Mains)*<br><br>V | Voltages for Table F.4  |  |
|--|---|--|
|  | For insulation conductor – conductor <sup>1)</sup>  | For insulation conductor – ground <sup>1)</sup>  |
|  | All systems<br><br>V | Three-conductor systems, center-point grounded<br><br>V |
| 12,5   | 12,5  |  |
| 24<br>25   | 25  |  |
| 30   | 32  |  |
| 42<br>48<br>50**   | 50  |  |
| 60   | 63  |  |
| 30 ... 60  | 63  | 32   |
| 100**  | 100   |  |
| 110<br>120   | 125   |  |
| 150**  | 160   |  |
| 200  | 200   |  |
| 110 ... 200  | 200   | 100  |
| 220  | 250   |  |
| 110 ... 220<br>120 ... 240                                   | 250   |  |
| 300**  | 320   |  |
| 220 ... 440  | 500   | 250  |
| 600**  | 630   |  |
| 480 ... 960  | 1000  | 500  |
| 1000**   | 1000  |  |


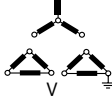
<sup>1)</sup> Conductor-to-ground insulation level for non-grounded or impedance-grounded systems equals that for conductor-to-conductor, as the operating voltage to ground of any conductor can, in practice, approach full conductor-to-conductor voltage. This is because the actual voltage to ground is determined by the insulation resistance and capacitive reactance of each conductor to ground; thus, low (but acceptable) insulation resistance of one conductor can in effect ground it and raise the other two to full conductor-to-conductor voltage to ground.

\* For the relationship to rated voltage, see 4.3.2.

\*\* These values correspond to the values given in Table F.1.

• Insulation Parameters per IEC/EN 60664-1 (continued)

Table F.3b: Single-Phase, 4- or 3-Conductor AC Systems

| Nominal Voltage of the Power Supply System (Mains)* | Voltages for Table F.4                             |  |  |
|---|--|--|--|
|   | for insulation conductor – conductor <sup>1)</sup> | for insulation conductor – ground <sup>1)</sup>  |  |
|   | All systems  | Three-phase, 4-conductor systems with grounded neutral conductor <sup>2)</sup>         | Three-phase, 3-conductor systems, non-grounded <sup>1)</sup> or grounded conductor     |
| V   | V  | <br>V | <br>V |
| 60  | 63   | 32   | 63   |
| 110<br>120<br>127                                   | 125  | 80   | 125  |
| 150**   | 160  |  | 160  |
| 200   | 200  |  | 200  |
| 208   | 200  | 125  | 200  |
| 220<br>230<br>240                                   | 250  | 160  | 250  |
| 300**   | 320  |  | 320  |
| 380<br>400<br>415                                   | 400  | 250  | 400  |
| 440   | 500  | 250  | 500  |
| 480<br>500  | 500  | 320  | 500  |
| 575   | 630  | 400  | 630  |
| 600**   | 630  |  | 630  |
| 660<br>690  | 630  | 400  | 630  |
| 720<br>830  | 800  | 500  | 800  |
| 960   | 1000   | 630  | 1000   |
| 1000**  | 1000   |  | 1000   |

<sup>1)</sup> Conductor-to-ground insulation level for non-grounded or impedance-grounded systems equals that for conductor-to-conductor, as the operating voltage to ground of any conductor can, in practice, approach full conductor-to-conductor voltage. This is because the actual voltage to ground is determined by the insulation resistance and capacitive reactance of each conductor to ground; thus, low (but acceptable) insulation resistance of one conductor can in effect ground it and raise the other two to full conductor-to-conductor voltage to ground.

<sup>2)</sup> For equipment used on both three-phase, 4-conductor and three-phase, 3-conductor systems, grounded and non-grounded, use only the values for 3-conductor systems.

\* For the relationship to the rated voltage, see 4.3.2.

\*\* These values correspond to the values given in Table F.1.

### Material Groups

Insulation materials are classified into four groups according to their Comparative Tracking Index (CTI) as follows:

- Material Group I:  $600 \leq \text{CTI}$
- Material group II:  $400 \leq \text{CTI} < 600$
- Material group III a:  $175 \leq \text{CTI} < 400$
- Material group III b:  $100 \leq \text{CTI} < 175$

The CTI values above refer to values obtained in accordance with

DIN EN 60664-1/VDE 0110-1 on samples specially made for this purpose and tested with Solution A.



## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests (continued)

Table F.4: Creepage Distances to Avoid Failure due to Tracking (Excerpt)

DIN EN 60664-1 / VDE 0110-1

| Voltage <sup>1)</sup><br>(RMS)<br><br>V | Minimum Creepage Distances     |                                     |                                |                             |                              |                               |                             |                              |  |
|---|--------------------------------|-------------------------------------|--------------------------------|-----------------------------|------------------------------|-------------------------------|-----------------------------|------------------------------|--|
|   | Printed Circuits               |                                     | Pollution degree               |                             |                              |                               |                             |                              |  |
|   | Pollution degree               |                                     | 1                              | 2                           | 2                            | 2                             | 3                           | 3                            | 3  |
|   | 1<br>All<br>Material<br>Groups | 2<br>All<br>Mat. Gr.<br>except IIIb | 1<br>All<br>Material<br>Groups | 2<br>Material<br>group<br>I | 2<br>Material<br>group<br>II | 2<br>Material<br>group<br>III | 3<br>Material<br>group<br>I | 3<br>Material<br>group<br>II | 3<br>Material<br>group<br>III <sub>2</sub> |
| mm                                      | mm                             | mm                                  | mm                             | mm                          | mm                           | mm                            | mm                          | mm                           |  |
| 10                                      | 0,025                          | 0,040                               | 0,080                          | 0,400                       | 0,400                        | 0,400                         | 1,000                       | 1,000                        | 1,000                                      |
| 12,5                                    | 0,025                          | 0,040                               | 0,090                          | 0,420                       | 0,420                        | 0,420                         | 1,050                       | 1,050                        | 1,050                                      |
| 16                                      | 0,025                          | 0,040                               | 0,100                          | 0,450                       | 0,450                        | 0,450                         | 1,100                       | 1,100                        | 1,100                                      |
| 20                                      | 0,025                          | 0,040                               | 0,110                          | 0,480                       | 0,480                        | 0,480                         | 1,200                       | 1,200                        | 1,200                                      |
| 25                                      | 0,025                          | 0,040                               | 0,125                          | 0,500                       | 0,500                        | 0,500                         | 1,250                       | 1,250                        | 1,250                                      |
| 32                                      | 0,025                          | 0,040                               | 0,14                           | 0,53                        | 0,53                         | 0,53                          | 1,30                        | 1,30                         | 1,30                                       |
| 40                                      | 0,025                          | 0,040                               | 0,16                           | 0,56                        | 0,80                         | 1,10                          | 1,40                        | 1,60                         | 1,80                                       |
| 50                                      | 0,025                          | 0,040                               | 0,18                           | 0,60                        | 0,85                         | 1,20                          | 1,50                        | 1,70                         | 1,90                                       |
| 63                                      | 0,040                          | 0,063                               | 0,20                           | 0,63                        | 0,90                         | 1,25                          | 1,60                        | 1,80                         | 2,00                                       |
| 80                                      | 0,063                          | 0,100                               | 0,22                           | 0,67                        | 0,95                         | 1,30                          | 1,70                        | 1,90                         | 2,10                                       |
| 100                                     | 0,100                          | 0,160                               | 0,25                           | 0,71                        | 1,00                         | 1,40                          | 1,80                        | 2,00                         | 2,20                                       |
| 125                                     | 0,160                          | 0,250                               | 0,28                           | 0,75                        | 1,05                         | 1,50                          | 1,90                        | 2,10                         | 2,40                                       |
| 160                                     | 0,250                          | 0,400                               | 0,32                           | 0,80                        | 1,10                         | 1,60                          | 2,00                        | 2,20                         | 2,50                                       |
| 200                                     | 0,400                          | 0,630                               | 0,42                           | 1,00                        | 1,40                         | 2,00                          | 2,50                        | 2,80                         | 3,20                                       |
| 250                                     | 0,560                          | 1,00                                | 0,56                           | 1,25                        | 1,80                         | 2,50                          | 3,20                        | 3,60                         | 4,00                                       |
| 320                                     | 0,75                           | 1,60                                | 0,75                           | 1,60                        | 2,20                         | 3,20                          | 4,00                        | 4,50                         | 5,00                                       |
| 400                                     | 1,0                            | 2,0                                 | 1,0                            | 2,0                         | 2,8                          | 4,0                           | 5,0                         | 5,6                          | 6,3  |
| 500                                     | 1,3                            | 2,5                                 | 1,3                            | 2,5                         | 3,6                          | 5,0                           | 6,3                         | 7,1                          | 8,0  |
| 630                                     | 1,8                            | 3,2                                 | 1,8                            | 3,2                         | 4,5                          | 6,3                           | 8,0                         | 9,0                          | 10,0                                       |
| 800                                     | 2,4                            | 4,0                                 | 2,4                            | 4,0                         | 5,6                          | 8,0                           | 10,0                        | 11,0                         | 12,5                                       |
| 1000                                    | 3,2                            | 5,0                                 | 3,2                            | 5,0                         | 7,1                          | 10,0                          | 12,5                        | 14,0                         | 16,0                                       |
| 1250                                    |                                |                                     | 4,2                            | 6,3                         | 9,0                          | 12,5                          | 16,0                        | 18,0                         | 20,0                                       |
| 1600                                    |                                |                                     | 5,6                            | 8,0                         | 11,0                         | 16,0                          | 20,0                        | 22,0                         | 25,0                                       |
| 2000                                    |                                |                                     | 7,5                            | 10,0                        | 14,0                         | 20,0                          | 25,0                        | 28,0                         | 32,0                                       |
| 2500                                    |                                |                                     | 10,0                           | 12,5                        | 18,0                         | 25,0                          | 32,0                        | 36,0                         | 40,0                                       |
| 3200                                    |                                |                                     | 12,5                           | 16,0                        | 22,0                         | 32,0                          | 40,0                        | 45,0                         | 50,0                                       |
| 4000                                    |                                |                                     | 16,0                           | 20,0                        | 28,0                         | 40,0                          | 50,0                        | 56,0                         | 63,0                                       |
| 5000                                    |                                |                                     | 20,0                           | 25,0                        | 36,0                         | 50,0                          | 63,0                        | 71,0                         | 80,0                                       |
| 6300                                    |                                |                                     | 25,0                           | 32,0                        | 45,0                         | 63,0                          | 80,0                        | 90,0                         | 100,0                                      |
| 8000                                    |                                |                                     | 32,0                           | 40,0                        | 56,0                         | 80,0                          | 100,0                       | 110,0                        | 125,0                                      |
| 10000                                   |                                |                                     | 40,0                           | 50,0                        | 71,0                         | 100,0                         | 125,0                       | 140,0                        | 160,0                                      |
| 12500                                   |                                |                                     | 50,0 <sup>3)</sup>             | 63,0 <sup>3)</sup>          | 90,0 <sup>3)</sup>           | 125,0 <sup>3)</sup>           |                             |                              |  |
| 16000                                   |                                |                                     | 63,0 <sup>3)</sup>             | 80,0 <sup>3)</sup>          | 110,0 <sup>3)</sup>          | 160,0 <sup>3)</sup>           |                             |                              |  |
| 20000                                   |                                |                                     | 80,0 <sup>3)</sup>             | 100,0 <sup>3)</sup>         | 140,0 <sup>3)</sup>          | 200,0 <sup>3)</sup>           |                             |                              |  |
| 25000                                   |                                |                                     | 100,0 <sup>3)</sup>            | 125,0 <sup>3)</sup>         | 180,0 <sup>3)</sup>          | 250,0 <sup>3)</sup>           |                             |                              |  |
| 32000                                   |                                |                                     | 125,0 <sup>3)</sup>            | 160,0 <sup>3)</sup>         | 220,0 <sup>3)</sup>          | 320,0 <sup>3)</sup>           |                             |                              |  |
| 40000                                   |                                |                                     | 160,0 <sup>3)</sup>            | 200,0 <sup>3)</sup>         | 280,0 <sup>3)</sup>          | 400,0 <sup>3)</sup>           |                             |                              |  |
| 50000                                   |                                |                                     | 200,0 <sup>3)</sup>            | 250,0 <sup>3)</sup>         | 360,0 <sup>3)</sup>          | 500,0 <sup>3)</sup>           |                             |                              |  |
| 63000                                   |                                |                                     | 250,0 <sup>3)</sup>            | 320,0 <sup>3)</sup>         | 450, <sup>3)</sup>           | 600,0 <sup>3)</sup>           |                             |                              |  |

<sup>1)</sup> This voltage if for

– functional insulation: the working voltage;

– Basic and supplementary insulation of the circuit energized directly from the mains (see 4.3.2.2.1): for the voltage selected from Table F.3a or F.3b, based on the rated voltage of the equipment, or the rated insulation voltage.

– Basic and supplementary insulation of systems, equipment and internal circuits not energized directly from the mains (see 4.3.2.2.2): the highest rms voltage which can occur in the system, equipment or internal circuit when supplied at rated voltage and under the least favorable combination of operation conditions within the equipment rating.

<sup>2)</sup> Material group IIIb is not recommended for applications with pollution degree 3 above 630 V.<sup>3)</sup> Provisional data based on extrapolation. Technical committees who have other information based on experience may use their dimensions.<sup>4)</sup> The values in brackets must only be applied for reducing creepage distances if a rib is used (see 5.2.5).

The high degree of accuracy of the creepage distances given in the table does not imply that the measuring accuracy must be of the same quality.

- Insulation Parameters per IEC/EN 60664-1 (continued)

Depending on the intended use, WAGO's terminal blocks, as well as splicing and pluggable connectors, are suitable for pollution degrees 3 or 2 and for overvoltage categories II or III. The rated voltages of WAGO's PCB terminal blocks and connectors are based on pollution degree 2 and overvoltage category III in per IEC/EN 60664-1 (insulation parameters).

Example:

**WAGO PCB Terminal Strips, 236 Series**  
(Pin spacing 5/5.08 mm / 0.197/0.2 in.)

320 V / 4 kV / 2

|                      |       |     |
|----------------------|-------|-----|
| Rated voltage        | 320 V |     |
| Rated surge voltage  |       | 4kV |
| Pollution degree     | 2     |     |
| Overvoltage category |       | III |

The specific values for pollution degree 3 and overvoltage category II are also given in the technical data.

The clearances and creepage distances required for defined voltage values in Table 3 of IEC/EN 60998-1 deviate somewhat from the requirements specified in the insulation parameters.

**Table 3: Clearances and Creepage Distances**  
(IEC/EN 60998-1)

| Rated insulation voltage<br>V | Creepage Distances, Clearances<br>mm |
|-------------------------------|--------------------------------------|
| ≤ 130                         | 1,5                                  |
| > 130 and ≤ 250               | 3,0                                  |
| > 250 and ≤ 450               | 4,0                                  |
| > 450 and ≤ 750               | 6,0                                  |
| > 750                         | 8,0                                  |

It must be determined in the end application which clearance and creepage distance requirements are to be observed for approval.

## Tests and Testing Procedures per IEC/EN Standards (continued)

### Electrical Tests (continued)

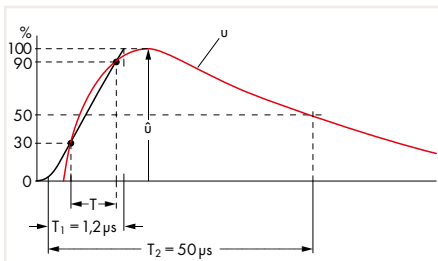
#### • Power-Frequency Withstand Voltage Test per IEC/EN 60998-1

This testing procedure verifies creepage distances. Creepage distances, i.e., the distances of creeping currents, are caused by conductive impurities on the surface of the insulation housing. Apart from the amount of impurities to which a terminal block is subjected, for example, the plastic material and housing design are also involved in generating creeping currents. The insulation material of the housing may be carbonized by a creeping current, which further increases conductivity.

The specimen is tested using a power-frequency withstand voltage for a short time. For example, a PCB terminal block designed to operate at 320 V nominal voltage is usually tested using 2500 V alternating voltage for one minute. The test is passed if no flashovers or breakdowns have occurred.

#### • Rated Impulse Withstand Voltage Test per IEC/EN 60664-1

This test verifies the clearances of a product. In simplified terms, clearance is the distance between two poles of a terminal block. If this distance is too small, voltage peaks may cause flashovers or breakdowns. The arrangement of the rated impulse withstand voltage test is identical to that of the power frequency withstand voltage test; the test voltages, however, are comparatively higher and the testing times shorter, e.g., 7.385 kV over 50 µs (see figure).



Voltage pulse: measurement curve (red) and auxiliary curve (black) for calculating the rate of rise of the pulse and the resulting (virtual) peak of the curve.

- T Time interval for calculating the rate of rise
- T1 Front time (duration between start of impulse and reaching the peak)
- T2 Total pulse duration

The test values are the values at sea level as specified in the relevant test specification.

The values indicated in the catalog correspond to an altitude of 2000 m.

The test is passed if no flashovers or breakdowns have occurred.

#### • IP Ratings for Electrical Equipment per IEC/EN 60529

| Alphanumeric Nomenclature for Type of Protection |   |   |  |
|--|---|---|--|
| Code letters<br>IP                               | Protection against accidental contact and against the penetration of foreign objects or water     | IP (Ingress Protection) = International protection class  |  |
| First code number<br>0 to 6                      | Indicates the protection class against accidental contact and the penetration of foreign objects. | If indicating the protection class requires only one digit, the other (second) digit must be substituted for with an X. |  |
| Second code number<br>0 to 8                     | Indicates the protection class against water penetration.   |   |  |
| First code number:                               |   | Second code number:   |  |
| IP0X   | No protection against accidental contact or the penetration of foreign objects                    | IPX0  | No protection against water                                      |
| IP1X   | Protection against foreign objects > 50 mm  | IPX1  | Protection against vertically falling water                      |
| IP2X   | Protection against foreign objects > 12 mm (e.g., finger)   | IPX2  | Protection against diagonally dripping water (15° angle)         |
| IP3X   | Protection against foreign objects > 2.5 mm   | IPX3  | Protection against water spray                                   |
| IP4X   | Protection against foreign objects > 1 mm   | IPX4  | Protection against water spray                                   |
| IP5X   | Protection against damaging dust deposits   | IPX5  | Protection against water jet, e.g., from a nozzle                |
| IP6X   | Protection against dust penetration   | IPX6  | Protection against flooding                                      |
|  |   | IPX7  | Protection against temporary immersion                           |
|  |   | IPX8  | Protection against continuous immersion                          |
|  |   | IPX9  | Protection against high-pressure and high-temperature water jets |

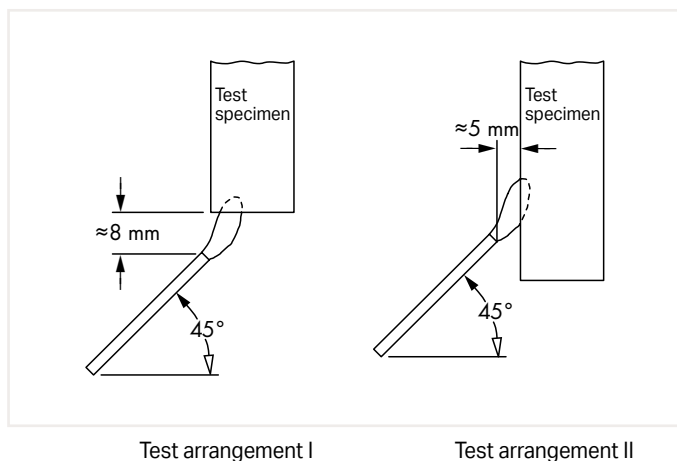
| IP vs. NEMA |        |
|-------------|--------|
| IP Code     | NEMA   |
| 10          | 1      |
| 11          | 2      |
| 54          | 3      |
| 14          | 3R     |
| 54          | 3S     |
| 55          | 4&4x   |
| 52          | 5      |
| 67          | 6&6P   |
| 52          | 12&12K |
| 54          | 13     |

## Material Tests

All WAGO products meet requirements for the following material tests:

- Needle Flame Test per IEC/EN 60695-11-5

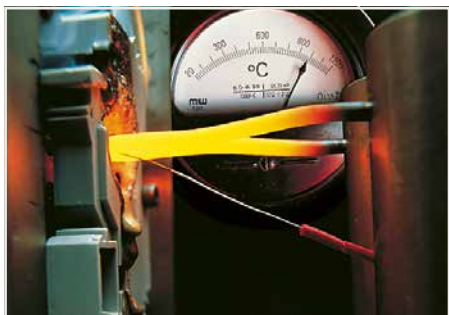
This test simulates flames that may arise under certain conditions (e.g. fault current over a creepage distance, overloading of parts or components). Nearby parts can also be affected by such flames. Not only the ignition of the test specimen resulting from an intrinsic defect is tested, but also its behavior when other parts ignite.



Flames must not be fuelled by the insulation materials used, thus creating a larger fire. The test specimen is exposed to a standard gas flame during a defined time period (e.g., ten seconds). After the test flame has been removed, the specimen must self-extinguish within 30 seconds. Furthermore, a layer of tissue paper located beneath the specimen must not be ignited by glowing particles falling from the specimen.

- Glow-Wire Test per IEC/EN 60998-1, IEC/EN 60695-2-11

In the event of failure, a high current may cause a conductor to glow.



However, the glowing conductor shall not cause ignition of the product involved (e.g., a rail-mount terminal block). For the glow-wire test, the tip of the glow-wire is pressed against a surface of the test specimen (see picture). The position of the test specimen, surface to be tested, test duration and glow-wire temperature (e.g., 960°C/1760°F over 30 seconds, or 850°C/1562°F over 5 seconds) are specified in the standards.

The specimen must be positioned such that the tip of the glow-wire acts on the surface section of the specimen (vertical surface of the specimen) that is most likely to be exposed to thermal loading during normal use.

As the highest temperature in the event of a fault is anticipated at the contact insert/wire connection, the tip of the glow-wire must act upon the section of the insulation housing that is the closest to this contact point. The test is passed if there are no visible flames or permanent glowing, or if flames or glowing extinguish within 30 seconds after removal of the glow-wire. Furthermore, a layer of tissue paper located beneath the specimen must not be ignited by glowing particles falling from the specimen.

## Tests and Testing Procedures per IEC/EN Standards (continued)

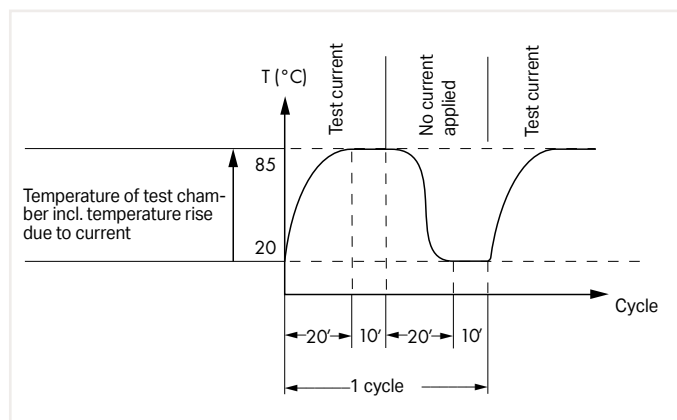
### Environmental Tests

The following tests show how a product reacts when exposed to an aggressive environment. Climatic chambers simulate standard atmospheres that could impact the long-term consistency of clamping units.

All WAGO products meet the requirements of the following environmental tests:

- Temperature Cycling Test per IEC/EN 60947-7-1, IEC/EN 60998-2-2

This test shows the change of voltage drop over longer periods under temperature cycling conditions. The test procedure usually consists of 192 temperature cycles, for example, each cycle having a duration of 60 minutes (see diagram).



The rated current is applied to the test specimen during temperature rise and when the temperature has reached its maximum value; during the second half of the cycle, the current is zero. Voltage drop is measured every 24 cycles and must not exceed a maximum value or vary greatly. The voltage drop measured at the end of the 192nd cycle must not exceed 1.5 times the value measured after the 24th cycle. After the test, an inspection must show no changes that would impair further use of the product.

- Industrial Atmospheres per EN ISO 6988, IEC/EN 60068-2-42, IEC/EN 60068-2-60

Sulphur and its combustion products are particularly aggressive pollutants commonly found in industrial environments. A test procedure simulating such corrosive conditions consists of exposing a test specimen to water condensation in variable atmospheres containing sulphur dioxide.



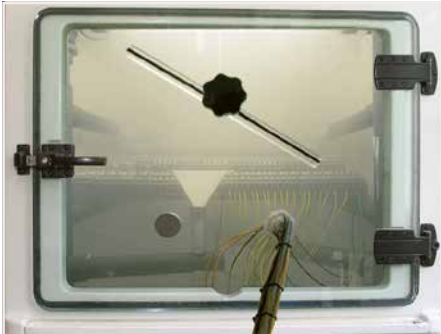
A saturated atmosphere is first created in a climatic chamber by heating an aqueous sulphur dioxide solution. After less than half an hour, the test specimen is fully saturated by the condensing vapors and exposed to this atmosphere for eight hours.

After exposure to a humid atmosphere, the test specimen is subjected to dry and cooler conditions at room temperature for 16 hours. Depending on the test severity, the specimen is exposed to both these conditions several times. The gas-tightness of the clamping unit is verified by a voltage drop test.

In other test procedures, products are exposed to a dry corrosive gas atmosphere containing sulfide, nitrogen and sulfur oxides or chloride gas. These tests can be performed over a period of four to 21 days.

• Salt Spray Test per IEC/EN 60068-2-11; DNV GL, LR (Marine Applications)

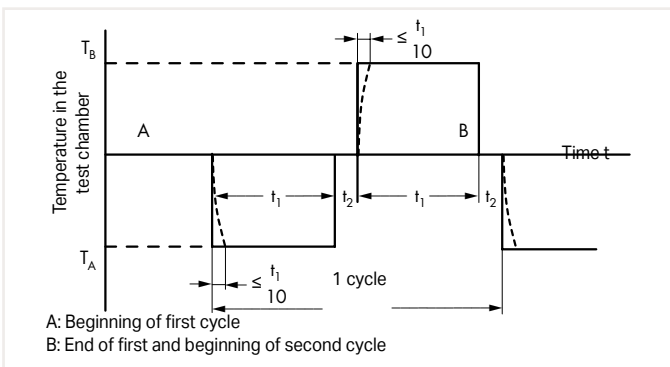
This test is similar to the test performed in atmospheres with varying water condensation, except that instead of industrial atmospheres, salt mist conditions will be simulated in a heated test chamber (see picture).



Depending on the test procedure being used, the test specimen is sprayed with salt mist for 16 hours up to 672 hours (4 weeks). Salt spray tests are widely used, especially for marine approvals. However, this test is performed differently than the test procedures described previously for general applications: During a typical test, the test specimen is sprayed with a salt solution for two hours and is then stored for seven days in an atmosphere with a relative humidity between 90 and 95%. This procedure is repeated four times. Voltage drop measurements are used as an evaluation criterion.

• Quick Change of Temperature per IEC/EN 60068-2-14

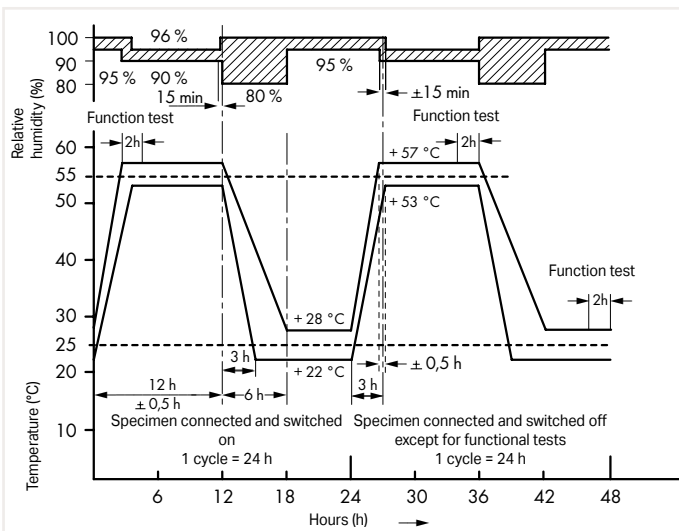
Without air-conditioning, distribution panels and terminal boxes are exposed to seasonal (and ever-changing) temperature extremes – especially on the open field side. In process technology, for example, a terminal block is exposed to even quicker changes in temperature.



To simulate such conditions, the test specimen is exposed to repeated temperature changes, for example, between  $T_A - 40^\circ\text{C}$  ( $-104^\circ\text{F}$ ) and  $T_B + 70^\circ\text{C}$  ( $+158^\circ\text{F}$ ). The dwell time  $t_1$  depends on the thermal capacity of the test specimen and should be between maximum of 3 h and minimum of 10 min and the transition time  $t_2$  2 ... 3 min, 20 ... 30 s or less than 10 s. The mechanical and electrical properties of the product are checked at the end of the test.

• Damp Heat, Cyclic (12 + 12 Hour Cycle) per IEC/EN 60068-2-30, DNV GL, LR (Marine Applications)

This test determines the suitability of electrical equipment for use and storage under conditions of high relative humidity when combined with cyclic temperature changes and, in general, producing condensation on the surface of the specimen.



In addition to the salt spray tests, the damp heat test is also used for marine approvals. For this test, the specimens are subjected to temperatures varying cyclically between  $+25^\circ\text{C}$  ( $+77^\circ\text{F}$ ) and  $+55^\circ\text{C}$  ( $+131^\circ\text{F}$ ) with a relative humidity of 95% (for tolerances see figure). Functional tests are performed at defined times during the storage period. The mechanical and electrical properties of the product are checked at the end of the test.



## UL Specifications – Underwriters Laboratories (USA)

WAGO terminal blocks and connectors are tested by Underwriters Laboratories Inc. according to one or more of the relevant following UL standards:

- PCB terminal strips (e.g., 236, 745 Series) are approved as non-stand-alone components per UL 1059 in connection with UL 486E.

UL 1059 Standard for terminal blocks  
UL 486 E Equipment wiring terminals for use with aluminum and/or copper conductors
- The *MULTI CONNECTION SYSTEM "MCS MIDI"* is approved as terminal blocks per UL 1059 standard in connection with UL 486 E. It is therefore defined for field and factory wiring with at 300 V.
- It is also approved as connectors for use in data, signal, control and power applications per UL 1977 for factory wiring at 600 V (i.e., the clamping unit must be wired under controlled manufacturing conditions).

UL 1977 Component connectors for use in data, signal, control and power applications
- Explosion terminal blocks are approved to UL 60079-7.

UL 60079-7 Electrical apparatus for explosive gas atmospheres – Part 7: Increased safety
- Insulation materials are tested for flammability and performance per UL 94.

UL 94 Tests for flammability of plastic materials for parts in devices and appliances

### Tests and Testing Procedures per UL Standards

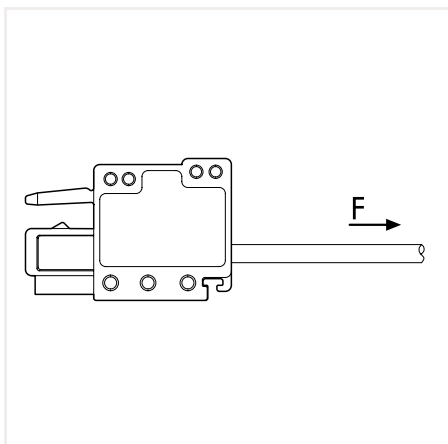
All WAGO products meet requirements for the following tests:

- Pull-Out Test per UL 1059, UL 486 E

In this test, the connected conductors are subjected to the appropriate pull-out forces specified in the following table without jerking for a period of one minute.

| Conductor Size |       | Pull-Out Force, Pounds (N) |                       |        |          |       |
|----------------|-------|----------------------------|-----------------------|--------|----------|-------|
| AWG<br>or      | kcmil | (mm <sup>2</sup> )         | UL 486 E,<br>Table 22 |        |          |       |
|                |       |                            | Copper                |        | Aluminum |       |
| 30             |       | (0.05)                     | 0,5                   | (2.2)  | -        | -     |
| 28             |       | (0.08)                     | 1                     | (4.5)  | -        | -     |
| 26             |       | (0.13)                     | 2                     | (8.9)  | -        | -     |
| 24             |       | (0.20)                     | 3                     | (13.4) | -        | -     |
| 22             |       | (0.32)                     | 4,5                   | (20)   | -        | -     |
| 20             |       | (0.52)                     | 6,75                  | (30)   | -        | -     |
| 18             |       | (0.82)                     | 6,75                  | (30)   | -        | -     |
| 16             |       | (1.3)                      | 9                     | (40)   | -        | -     |
| 14             |       | (2.1)                      | 11,5                  | (50)   | -        | -     |
| 12             |       | (3.3)                      | 13,5                  | (60)   | 10       | (44)  |
| 10             |       | (5.3)                      | 18                    | (80)   | 10       | (44)  |
| 8              |       | (8.4)                      | 20,5                  | (90)   | 10       | (44)  |
| 6              |       | (13.3)                     | 21                    | (94)   | 28       | (124) |
| 4              |       | (21.2)                     | 30                    | (133)  | 36       | (160) |
| 3              |       | (26.7)                     | 35                    | (156)  | 42       | (187) |
| 2              |       | (33.6)                     | 42                    | (186)  | 50       | (222) |
| 1              |       | (42.4)                     | 53                    | (236)  | 61       | (271) |
| 1/0            |       | (53.5)                     | 64                    | (285)  | 72       | (320) |
| 2/0            |       | (67.4)                     | 64                    | (285)  | 78       | (347) |
| 3/0            |       | (85.0)                     | 79                    | (351)  | 97       | (432) |
| 4/0            |       | (107)                      | 96                    | (427)  | 116      | (516) |
| 250            |       | (127)                      | 96                    | (427)  | 116      | (516) |
| 300            |       | (156)                      | 99                    | (441)  | 116      | (516) |

### Test Arrangement per UL 1059, UL 486 E:



## UL Specifications – Underwriters Laboratories, USA (continued)

### Tests and Testing Procedures per UL Standards (continued)

- Heat Cycling Test per UL 1059, UL 486 E

Tests performed:  
**UL 1059**

Test performed with maximum rated cross-section  
Test current: 150% of maximum rated current

84 cycles of: 3 1/2 h ON / 1/2 h OFF

The temperature rise is measured after the first and the 84th cycle.

The temperature rise must not exceed 5°C (41°F) after the 84th cycle, compared to the temperature measured after the first cycle.

per **UL 486 E** (equipment wiring terminals)

Test performed with maximum rated cross-section  
Test current: Increased test current per UL 486 E, Table 4

500 cycles of: 1 h ON / 1 h OFF  
1 1/2 h ON / 1 1/2 h OFF  
(from 4/0 AWG up to 400 kcmil per UL 486 E)

The temperature rises at the terminal blocks and control conductors are measured and recorded after: 1, 25, 50, 75, 100, 125, 175, 225, 275, 350, 425 and 500 cycles.

The temperature rise must not exceed 125°C (257°F) and the stability factor "S" must not exceed ±10.

| Conductor Size     |                    | Test Current for Copper Conductors in A        |                                    |   |                      |
|--------------------|--------------------|--|------------------------------------|---|----------------------|
|                    |                    | UL 486 E, Table 4                              |                                    |   |                      |
| AWG<br>or<br>kcmil | (mm <sup>2</sup> ) | Assigned<br>max.<br>Ampere Rating <sup>b</sup> | Static<br>Heating <sup>a,c,g</sup> | Heat Cycling<br>Temperature Rating <sup>a</sup> |                      |
|                    |                    |  |                                    | 75 °C <sup>d,g</sup>                            | 90 °C <sup>e,g</sup> |
| 30                 | (0.05)             | -  | 3                                  | 3,5   | 4                    |
| 28                 | (0.08)             | -  | 3,5                                | 4   | 5                    |
| 26                 | (0.13)             | -  | 5,5                                | 6   | 8                    |
| 24                 | (0.20)             | -  | 7                                  | 8   | 10                   |
| 22                 | (0.32)             | -  | 9                                  | 12  | 13                   |
| 20                 | (0.52)             | -  | 12                                 | 16  | 17                   |
| 18                 | (0.82)             | -  | 17                                 | 19  | 24                   |
| 16                 | (1.3)              | -  | 18                                 | 20  | 31                   |
| 14                 | (2.1)              | 15   | [20] 30                            | [22] 33   | [27] 40              |
| 12                 | (3.3)              | 20   | [25] 35                            | [28] 39   | [40] 54              |
| 10                 | (5.3)              | 30   | [40] 50                            | [45] 56   | [60] 75              |
| 8                  | (8.4)              | 50   | 70                                 | 80  | 100                  |
| 6                  | (13.3)             | 65   | 95                                 | 105   | 131                  |
| 4                  | (21.2)             | 85   | 125                                | 140   | 175                  |
| 3                  | (26.7)             | 100  | 145                                | 165   | 205                  |
| 2                  | (33.6)             | 115  | 170                                | 190   | 240                  |
| 1                  | (42.4)             | 130  | 195                                | 220   | 275                  |
| 1/0                | (53.5)             | 150  | 230                                | 255   | 320                  |
| 2/0                | (67.4)             | 175  | 265                                | 300   | 370                  |
| 3/0                | (85.0)             | 200  | 310                                | 345   | 435                  |
| 4/0                | (107)              | 230  | 360                                | 405   | 505                  |
| 250                | (127)              | 255  | 405                                | 445   | 565                  |
| 300                | (152)              | 285  | 445                                | 500   | 625                  |

<sup>a</sup> See Section 7.2, 8.2 and 9.2 (UL 486 E)

<sup>b</sup> Values are for 75°C (167°F), not more than three conductors in raceway or cable ampacities, National Electric Code, ANSI/NFPA 70.

<sup>c</sup> Values are for 75 °C (167 °F) single conductors in free air ampacities, National Electric Code, ANSI/NFPA 70.

<sup>d</sup> Values are approximately 112% of the static heating test currents.

<sup>e</sup> Values for -8 AWG and larger conductors are approximately 140% of the static heating test currents.

<sup>f</sup> See Section 9.2.4

<sup>g</sup> Values in parentheses apply to connectors with assigned ampere ratings.

- Conditioning – Temperature-Rise Rest per UL 1059

Tests performed:  
**UL 1059** (terminal blocks)

Conditioning:

The clamping units are pre-wired/pre-inserted nine times using a conductor with maximum rated cross-section. At the tenth time, a new conductor is connected.  
After this, a static heating test is performed.

Static Heating Test:  
Test current: Terminal block rated current  
Test duration: 30 days  
Max. permissible temperature rise: 30 °C

## UL Specifications – Underwriters Laboratories, USA (continued)

### Tests and Testing Procedures per UL Standards (continued)

#### • Insulation Parameters per UL 1059

The table below shows the potential involved and the corresponding clearances and creepage distances required in different applications.

**Table 8.1 – Minimum Acceptable Spacing for Terminal Blocks per UL 1059 Standard**

| Use Group | Application  | Potential Involved in Volts | Spacing in inches (mm) between uninsulated live parts of opposite polarity, uninsulated live parts and uninsulated grounded parts other than the enclosure |                    |                   |                    |
|-----------|--|-----------------------------|--|--------------------|-------------------|--------------------|
|           |  |                             | Through Air  |                    | Over Surfaces     |                    |
| A.        | Dead-front switchboards, panelboards, service equipment and similar applications                                   | 51 ... 150                  | 1/2  | (12.7)             | 3/4               | (19.1)             |
|           |  | 151 ... 300                 | 3/4  | (19.1)             | 1...1/4           | (31.8)             |
|           |  | 301 ... 600                 | 1  | (25.4)             | 2                 | (50.8)             |
| B.        | Commercial appliances, including business equipment, electronic data processing equipment and similar applications | 51 ... 150                  | 1/16 <sup>a</sup>  | (1.6) <sup>a</sup> | 1/16 <sup>a</sup> | (1.6) <sup>a</sup> |
|           |  | 151 ... 300                 | 3/32 <sup>a</sup>  | (2.4) <sup>a</sup> | 3/32 <sup>a</sup> | (2.4) <sup>a</sup> |
|           |  | 301 ... 600                 | 3/8  | (9.5)              | 1/2               | (12.7)             |
| C.        | Industrial, general  | 51 ... 150                  | 1/8 <sup>a</sup>   | (3.2) <sup>a</sup> | 1/4               | (6.4)              |
|           |  | 151 ... 300                 | 1/4  | (6.4)              | 3/8               | (9.5)              |
|           |  | 301 ... 600                 | 3/8  | (9.5)              | 1/2               | (12.7)             |
| D.        | Industrial devices having limited ratings <sup>b</sup>   | 51 ... 300                  | 1/16   | (1.6) <sup>a</sup> | 1/8 <sup>a</sup>  | (3.2) <sup>a</sup> |
|           |  | 301 ... 600                 | 3/16 <sup>a</sup>  | (4.8) <sup>a</sup> | 3/8               | (9.5)              |
| E.        | Terminal blocks rated 601 ... 1500 V <sup>c</sup>  | 601 ... 1000                | 0,55   | (14.0)             | 0,85              | (21.6)             |
|           |  | 1001 ... 1500               | 0,70   | (17.8)             | 1,20              | (30.5)             |

Notes:

1 A slot, groove, or similar, 0.013 inch (0.33 mm) wide or less in the contour of the insulating material is to be disregarded.

2 Air space of 0.33 mm or less between a live part and an insulating surface is to be disregarded for the purpose of measuring over surface spacing.

<sup>a</sup> The spacing between terminal blocks of opposite polarity and the spacing between a terminal block and a grounded dead metal part shall not be less than 1/4 inch (6.4 mm) if short-circuiting or grounding of such terminal blocks may result from protruding wire strands.

<sup>b</sup> See Section 8.5 (UL 1059)  
The distances given in Subsection D of Table 8.1 are applicable to a terminal block for use only in or with industrial control equipment where the load on any single circuit of the terminal block does not exceed 15 A at 51 ... 150 V, 10 A at 151 ... 300 V, 5 A at 301 ... 600 V or the maximum ampere rating, whichever is less.

<sup>c</sup> Applies only to terminal blocks investigated to Part II of this standard. See Section 22.1 (UL 1059).

#### • Flammability Test per UL 94

This test provides an indication of the material's ability to extinguish a flame, once ignited.

Several ratings can be applied, based on the rated of burning, time to extinguish, ability to resist dripping, and afterglow extinguishing time. Each material tested may receive several ratings, depending on the wall thickness.

UL 94 Rating Categories:

##### V2

- Specimen mounted vertically
- Burning stops within 30 seconds after the flame is removed
- Flaming drips allowed
- Afterglow extinguishes within max. 60 s

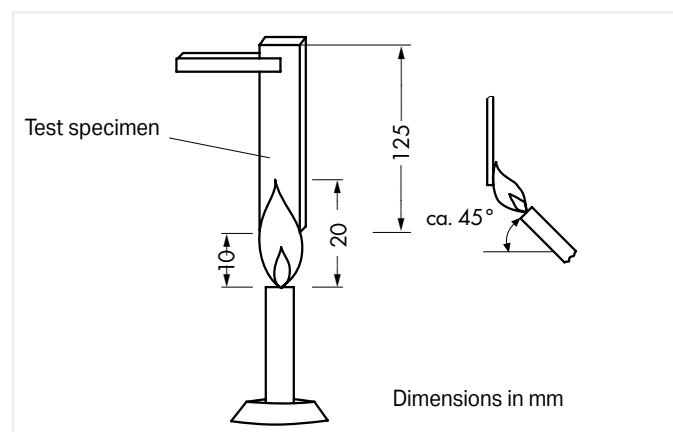
##### V1

- Specimen mounted vertically
- Burning stops within 30 seconds after the flame is removed
- No flaming drips allowed
- Afterglow extinguishes within max. 60 s

##### V0

- Specimen mounted vertically
- Burning stops within 10 seconds after the flame is removed
- No flaming drips allowed
- Afterglow extinguishes within max. 30 s

During the test, a 3/4 inch (20 ± 1 mm) flame is applied for two 10-second intervals to the specified bar specimen held vertically.



## Terminating Aluminum Conductors

„Alu-Plus“ contact paste also allows WAGO spring-clamp terminal blocks to properly terminate solid aluminum conductors up to 4 mm<sup>2</sup>. ❶

„Alu-Plus“ Contact Paste:

- Prevents fresh oxidation at the clamping point.
- Prevents electrolytic corrosion between aluminum and copper conductors.
- Provides long-term protection against corrosion.

Using terminal blocks with CAGE CLAMP® Spring Pressure Connection Technology, aluminum conductors must first be cleaned and then immediately be inserted into the clamping units filled with „Alu-Plus“ contact paste.

It is also possible to apply WAGO „Alu-Plus“ additionally on the whole surface of the aluminum conductor before termination.

It should also be noted that the nominal currents are adapted to the lower conductivity of the aluminum conductors:

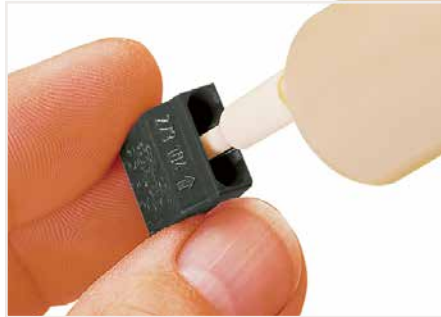
2.5 mm<sup>2</sup> = 16 A

4 mm<sup>2</sup> = 22 A

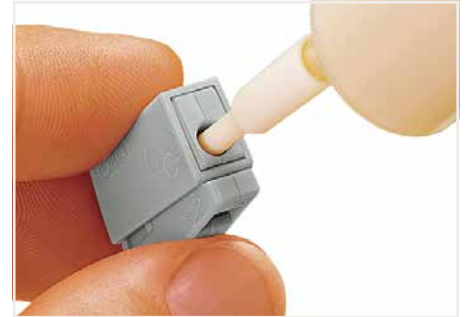
- ❶ Aluminum conductors per IEC 61545 standard, Class B, „Alloy 1370“ with 90 ... 180 N/mm<sup>2</sup> tensile strength and 1 ... 4% elongation  
Standard values: 90 ... 180 MPa tensile strength,  
1 ... 4% elongation (per EN 615.4.1)

WAGO „Alu-Plus“ in the syringe offers a higher degree of reliability and cleanliness when terminating solid aluminum conductors.

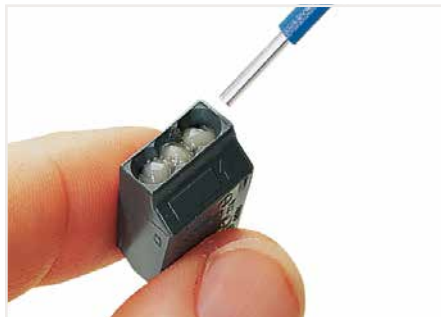
Filling is, for example, quickly performed on WAGO Junction Box Connectors and WAGO Lighting Connectors.



WAGO Junction Box Connectors  
Push nozzle of the „Alu-Plus“ syringe into the center conductor entry hole of the WAGO Junction Box Connector.



WAGO Lighting Connectors  
Push the „Alu-Plus“ syringe's nozzle into the circular entry first and then into the square conductor entry hole of the WAGO Lighting Connector.



Press plunger down until „Alu-Plus“ is visible in the other holes.



Press the plunger down until „Alu-Plus“ fills both entry holes.



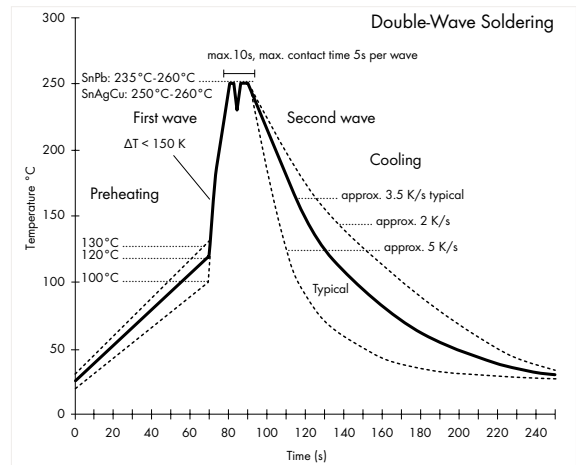
# Processing Information and Material Specifications

## • Soldering Information

### Wave Soldering

WAGO's PCB terminal blocks and connectors comply with the 2011/65/EU Directive of June 8, 2011 and display the "RoHS compliant" logo on their packaging.

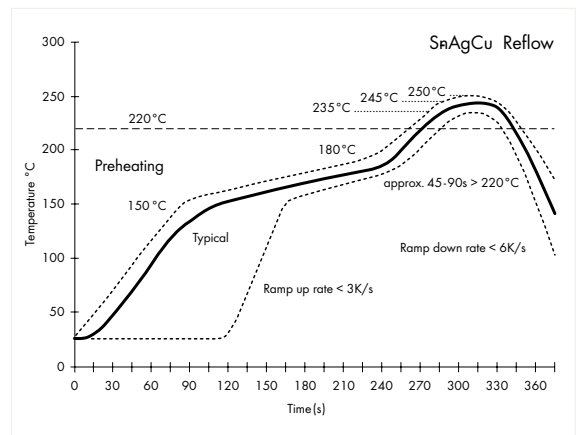
In accordance with IEC 61760-1, the maximum double-wave soldering temperature is 260°C (500°F) for a maximum 10 seconds or 5 seconds per wave.



### Reflow Soldering

WAGO's THR and SMD PCB terminal blocks and connectors have high-temperature-resistant insulated housings and reflow solder contacts.

In accordance with IEC 61760-1 or IEC 60068-2-58, the maximum soldering temperature is 260°C/500°F (peak temperature). Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.



## • Insulation Materials

WAGO primarily uses polyamide (PA 66 and PA 46) for housing current-conducting parts, as well as polyphthalamide (PPA) and polycarbonate (PC) for insulation material (see table). For more than 50 years, these materials have proven themselves in WAGO products and all are approved by certified third-party agencies. All listed halogen-free and flame-retardant polymer materials do not contain any heavy metals, silicone, asbestos or formaldehyde as formulation components.

Table: Standard Insulation Materials

| Material   | PA 66                 | PA 66 GF              | PPA GF                | PA 46                 | PC                    | PC                    |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Flammability<br>UL 94 flammability test ratings                                  | V0                    | V0                    | V0                    | V2                    | V2                    | V0                    |
| Oxygen index (OI) per EN ISO 4589-2  | > 32 %                | > 33 %                | > 37 %                | > 27 %                | > 26 %                | > 35 %                |
| Glow-wire test per<br>IEC 60695-2-12 GWF1*<br>IEC 60695-2-13 GWIT*               | 850 °C<br>775 °C      | 850 °C<br>775 °C      | 850 °C<br>775 °C      | 750 °C<br>725 °C      | 800 °C<br>850 °C      | 960 °C<br>850 °C      |
| Comparative Tracking Index (CTI) per IEC 60112                                   | 600 V                 | 600 V                 | 600 V                 | 375 V                 | 225 V                 | 225 V                 |
| Temperature of the ball indentation hardness test per<br>IEC 60695-10-2          | ≥ 125 °C              | ≥ 175 °C              | ≥ 225 °C              | n.s.**                | ≥ 125 °C              | ≥ 125 °C              |
| RTI impact per UL 746B   | 105 °C                | 100 °C                | 115 °C                | 115 °C                | 125 °C                | 120 °C                |
| Heat deflection temperature (HDT/B) per ISO 75 (at a bending stress of 0.45 MPa) | 215 °C                | 235 °C                | 285 °C                | 280 °C                | 130 °C<br>(1.8 MPa)   | 130 °C<br>(1.8 MPa)   |
| Surface resistivity per IEC 60093  | 10 <sup>12</sup> Ω    | 10 <sup>12</sup> Ω    | 10 <sup>15</sup> Ω    | 10 <sup>13</sup> Ω    | 10 <sup>15</sup> Ω    | 10 <sup>15</sup> Ω    |
| Specific contact resistance per IEC 60093  | 10 <sup>15</sup> Ω/cm | 10 <sup>15</sup> Ω/cm | 10 <sup>13</sup> Ω/cm | 10 <sup>13</sup> Ω/cm | 10 <sup>11</sup> Ω/cm | 10 <sup>13</sup> Ω/cm |
| Dielectric strength per IEC 60243-1  | 30 kV/mm              | 40 kV/mm              | 25 kV/mm              | 25 kV/mm              | 25 kV/mm              | 29 kV/mm              |

\*Value depends on wall thickness, EN 60335 compliance upon request; \*\*n. A. = not specified

**Polyamide (PA 66)**

WAGO uses modified, halogen-free, flame-retardant polyamides. These materials do not corrode, are difficult to ignite and feature self-extinguishing properties (V0 rating per UL 94). Adhering to UL 746C, the polyamides used at WAGO have a continuous operating temperature of 105°C (221°F) based on the relative temperature index with impact load (RTIimp). This ensures that the necessary electrical and mechanical insulating properties are maintained at a sufficiently guaranteed level over a long period of time. The short-term upper temperature limit is 200°C (392°F). In lower temperature ranges, it has been determined that no damage to the insulation material occurs during usage down to -35 °C (-31 °F). After installation and wiring, WAGO products can even be used at temperatures down to -60 °C (-76 °F). Environmental humidity (up to 2.5 % in a standard atmosphere) is absorbed, providing the polyamides with optimum elasticity, strength and durability. In practical use, basic stabilization of WAGO's polyamides has been proven over many years to be sufficient to prevent damage caused by ozone or UV radiation exposure in intended applications. Polyamides have excellent resilience against the most demanding climates and have been proven in tropical applications. Insulation parts made of polyamide are resistant to insects. The material does not provide oxygen or other biogenic elements to microorganisms. The presence of anaerobic earth bacteria, mold, fungus and enzymes does not degrade the material. Polyamides are resistant to most fuels, greases, and oils, as well as the most commonly used cleaners, such as alcohol, Freon, Frigen, and carbon tetrachloride. Acid resistance depends on the acid type and concentration, as well as the exposure time. Insulation materials are used during in-house production at WAGO after acceptance of factory test certificates and specified material tests.

WAGO uses glass-fiber-reinforced polyamides for components with increased mechanical demands, such as levers, push-buttons or housings exposed to high stress, because they have significantly better mechanical characteristic properties than non-reinforced polyamides. In general, materials are used that have excellent tracking resistance, flammability ratings and high temperature resistance. More data can be found in the table.

**Polyphthalamide (PPA GF)**

Glass-fiber-reinforced, high-performance polyamides are ideal for high-temperature applications, due to the material's high level of thermal dimensional stability, its low dependence on ambient conditions and its excellent strength properties. The material's outstanding tracking resistance permits short creepage distances to be incorporated into miniature components. Fire protection equipment enables classification in flammability class V0 per UL 94 – even for extremely thin walls. PPA GF absorbs minute amounts of moisture from the atmosphere, making it ideal for reflow soldering applications and for thin-walled, dimensionally stable components. More data can be found in the table.

**Polyamide (PA 46)**

In comparison with PA 66, PA 46 has substantially higher dimensional stability under heat. The relative temperature index with impact load (RTIimp) is 115°C (239°F) for PA 46. The permissible short-term temperature for the type used by WAGO is 280 °C (536 °F). More data can be found in the table.

**Polycarbonate (PC)**

Polycarbonate has excellent dimensional stability under heat. The electrical and mechanical properties remain intact at extremely high temperatures up to approximately 120°C (248°F) per UL Yellow Card. Its excellent electrical insulating properties and dimensional stability are virtually independent of environmental conditions, such as humidity and temperature. High-precision components can be created due to the low shrinkage of the material during injection molding. Polycarbonate has excellent weather resistance and is also highly resistant to high energy radiation. If the PC is not colored, then the components are glass-clear. Thanks to its desirable properties (e.g., dimensional stability, heat resistance, non-flammability, durability and transparency), PC is a proven and widely used material in the electrical industry. Depending on the demands placed on the finished product, WAGO uses polycarbonates that carry flammability classifications V2 and V0 per UL 94. Medium-viscosity PC is used, which features excellent chemical resistance.

**Glass Fiber-Reinforced Polyamide (PA°66°GF)**

## Material Specifications (continued)

### Contact Materials

Hard and extra-hard electrolytic copper (ECu), as well as extra-hard copper alloys, are the standard materials used for the current-carrying parts of all WAGO products.

These materials combine excellent conductivity and good chemical resistance without the risk of stress-induced cracking.

### Contact Plating

The special tin layer, which is the standard layer for all current-carrying parts in WAGO products, ensures perfect long-term protection against corrosive substances. Furthermore, these layers provide a gas-tight contact that ensures durable contact resistance.

At the clamping unit, the conductor is embedded into the soft tin layer with high contact pressure. This protects the contact area against corrosion.

The thickness of the applied tin layers also ensures good solderability on the solder pins of terminal blocks and pluggable connectors for PCBs.

### Clamping Spring Material

Every WAGO clamping spring is made of high-quality, accurately tested austenitic chrome nickel steel (CrNi) with high tensile strength, which boasts proven, long-term corrosion resistance.

It is resistant to sea spray, city pollutants and industrial emissions (e.g., sulfur dioxide, hydrogen sulfide).

At room temperatures of approximately 20°C (68°F), the material is resistant to salt solutions up to 30% and dilute phosphoric acids up to 30%.

Even after decades of use, no galvanic corrosion between the chrome nickel spring steel (in connection with the contact materials used by WAGO) and the connected copper conductors has been detected.

The relaxation of the material as a function of time and surrounding temperatures up to 105°C (221°F) can be ignored. Samples loaded with 500 N/mm<sup>2</sup> at a temperature of 250°C (482°F) showed a relaxation of only 1.5%.

In certain product lines, the clamping springs are thermally treated at temperatures between 350°C (662°F) and 420°C (788°F) after production.

This treatment reduces internal stress due to the material's mechanical deformation, which may result in a slight brown discoloration of the spring surface.

WAGO only accepts deliveries of chrome nickel spring steel against certificates of conformity and after select material tests have been performed.

## General Technical Information on Electrical Equipment Used in Hazardous Areas

The formation of an explosive atmosphere is required for the existence of a potentially explosive hazard. Such an atmosphere can be produced at any location where flammable gases or liquids are manufactured, processed, transported and/or stored. Such **hazardous areas** can be found in a wide range of industries, including chemical plants, refineries, power plants, paint production facilities, painting shops, filling stations, vehicles, sewage treatment plants, airports, grain mills or harbor facilities.

### THE FOLLOWING APPLIES AS A GUIDELINE FOR THE UNDERLYING PRINCIPLE FOR EXPLOSION PROTECTION:

#### General Requirements

The European EN 60079-0 Standard – VDE 0170-1 Classification – contains general requirements for the design and testing of electrical equipment to be used in hazardous areas. This ensures this equipment does not cause an explosion in the surrounding atmosphere.

#### Electrical Equipment

Electrical equipment includes all items used in whole or in part with electricity. This includes items for generation, transport, distribution, storage, measurement, control, conversion and consumption of electrical power, as well as telecommunications.

#### Ex Components

Ex components are elements of electrical equipment for hazardous areas that are marked with the "U" letter. These components must not be used on their own in such areas and require an additional certificate when used in such areas when installed in the electrical equipment.

#### Ignition Protection Categories

Only explosion-proof (protected) equipment must be used in areas in which an explosive atmosphere may still be expected despite the implementation of prevention measures. Explosion-protected electrical equipment can have various types of protection in accordance with the EN 60079 standard requirements.

Protection used by the manufacturer essentially depends on the type and function of the apparatus. From a safety point of view, all standardized types of protection should be viewed as equal.

The ignition protection category "n" exclusively describes the use of explosion-protected electrical components in Zone 2. This zone includes areas in which hazardous, potentially explosive atmospheres are likely to occur rarely or short-term. This represents a transition between Zone 1, in which explosion protection is required, and the safe area in which, for example, welding may be performed at any time. Regulations covering these electrical components are being prepared worldwide. Organizations such as KEMA in the Netherlands, or PTB in Germany certify that the devices meet the requirements of the EN 60079-15 standard. Ignition protection category "n" also requires that electrical equipment be provided with additional ID markings as follows:

A – non-sparking (function modules without relays/switches)

AC – sparking, contacts protected with seals (function modules with relays/without switches)

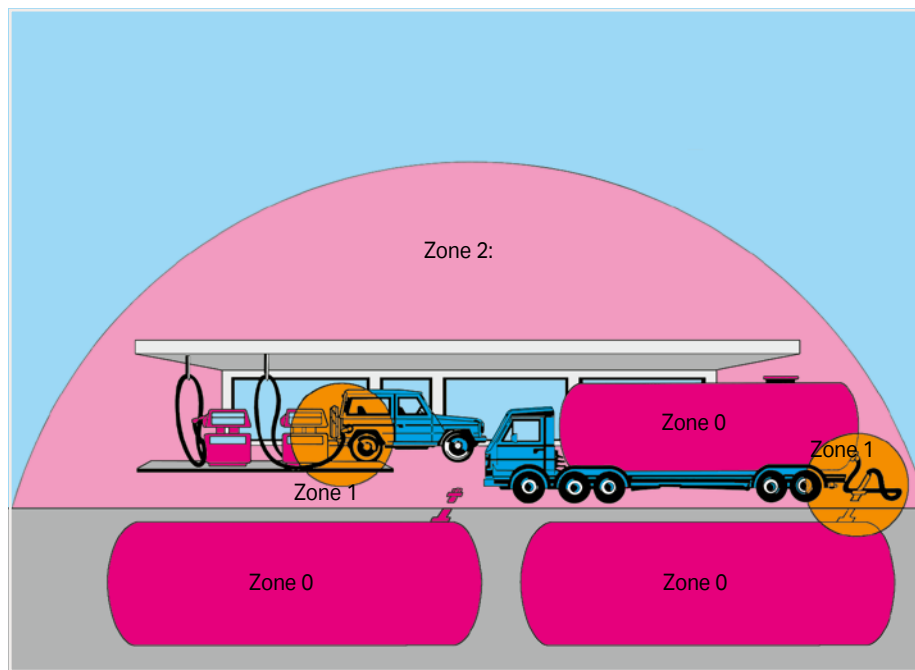
L – limited power (function modules with switches)

## General Technical Information on Electrical Equipment Used in Hazardous Areas (continued)

Hazardous areas are zones in which the atmosphere may become explosive. An explosive atmosphere is a mixture of flammable substances in the form of gases, vapors or mixtures with air under atmospheric conditions in critically mixed ratios such that

excessive high temperature, arcs or sparks may cause an explosion.

EN 1127-1 and all other well-known standards rank hazardous areas according to the likelihood of the occurrence of an explosive atmosphere into the following zones:



- ① Hazardous areas due to explosive gases, vapors and mists

### Zone 0

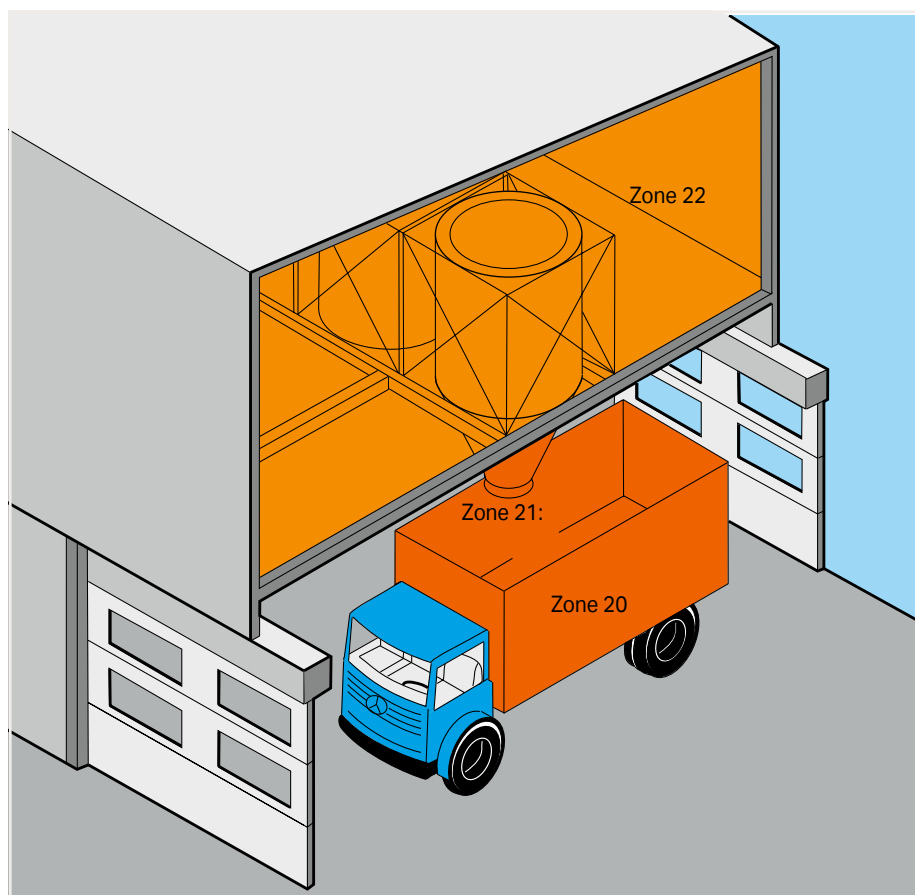
Areas in which an explosive atmosphere is present continuously, for long periods or frequently.

### Zone 1

Areas in which an explosive atmosphere is likely to occur occasionally during normal operation.

### Zone 2:

Areas in which an explosive atmosphere is likely to occur rarely or only for a short period during normal operation.



- ② Hazardous areas due to explosive dust/air mixtures

### Zone 20

Areas in which an explosive atmosphere due to dust/air mixtures is present continuously, for long periods or frequently and in which dust deposits of known or excessive thickness may form. Dust deposits alone do not constitute a Zone 20.

### Zone 21:

Areas in which the occurrence of an explosive atmosphere due to dust/air mixtures is to be expected occasionally and in which deposits or layers of combustible dust can generally be present.

### Zone 22

Areas in which an explosive atmosphere due to dust/air mixtures is not likely to occur during normal operation and, if it occurs, will only exist for a short period, or in which accumulations or layers of combustible dust are present.

EN 60079-0 also classifies electrical equipment for use in hazardous areas into two groups:

**Group I:**

Electrical equipment for mines susceptible to firedamp

**Group II:**

Electrical equipment for hazardous areas, except for mines susceptible to firedamp. As this broad application range encompasses a large number of potentially flammable gases, Group II is broken down into sub-groups IIA, IIB and IIC. This breakdown is based on different gases/materials exhibiting differing ignition power levels as parameters. Therefore, representative gases have been allocated to these three sub-groups:

- IIA – Propane
- IIB – Ethylene
- IIC – Hydrogen

Publication of the WBK Mining Authority dated March 1989.

Quote: "... terminal blocks that have been certified for the type of protection Ex e II will also be accepted, for example, for Group I – equipment with "e" (increased safety) protection type."

This information is given under Item 12 in the EC Prototype Test Certificates, based on which the terminal blocks have been approved for Group I and Group II.

| Temperature Category | Maximum Surface Temperature (°C) |
|----------------------|----------------------------------|
| T1                   | 450                              |
| T2                   | 300                              |
| T3                   | 200                              |
| T4                   | 135                              |
| T5                   | 100                              |
| T6                   | 85                               |

Depending on the maximum surface temperature, electrical equipment in Group II are classified in temperature categories T1 to T6 for all protection types. The ambient temperature, which must be accounted for in dimensioning, is defined as 40°C/104°F (deviations are acceptable under some conditions).

Terminal blocks for "e" (increased safety) protection type are generally assigned to temperature category T 6. When terminal blocks are used in equipment of temperature categories T1 to T5, ensure that the highest temperature on the insulating parts does not exceed 85°C (185°F). The highest measured surface temperature rise must not exceed 40 K.

Thermal resistance of the insulation material must be at least 20°C (68°F) greater than the highest operating temperature. Low temperature stability is considered to be sufficient when the insulation material can withstand 24-hour storage at a temperature of -60°C (-76°F) without nullifying the type of protection.

**Special Requirements  
Increased safety Ex e**

The European EN 60079-7 Standard – VDE 0170 Part 6 Classification – contains special requirements for the design and testing of electrical equipment with "e" (increased safety) protection type for use in hazardous areas.

This standard is a supplement to EN 60079-0 and applies to equipment or parts thereof that neither generate sparks or arcing under normal operating conditions, nor exhibit hazardous temperatures. This standard describes special measures, which have to be observed to obtain a safety degree according to the "e" (increased safety) protection type.

Ex components, such as PCB terminal blocks, are covered by Section 4.2, "Terminal Blocks for External Conductors." The following are the most important design requirements for terminal blocks for external supply conductors to electrical equipment: They must:

- be sufficiently large to permit reliable connection of external supply conductors with cross-section of at least the size required by the nominal current of the equipment
- be protected against self-loosening and designed such that the supply conductors cannot slip out of their clamping units
- be designed such that adequate contact pressure is ensured without damaging the conductors
- be designed such that their contact pressure does not change with temperature cycling
- be equipped with a spring connecting link for the connection of stranded conductors
- be designed so as to allow secure connection of smaller conductors for terminal blocks up to 4 mm<sup>2</sup> (12 AWG).

**Minimum Ignition Power of Typical Gases:**

| Explosion Group | I       | IIA     | IIB      | IIC      |
|-----------------|---------|---------|----------|----------|
| Gas             | Methane | Propane | Ethylene | Hydrogen |
| Ignition Power  | 280     | 250     | 82       | 16       |

The following table shows a comparison between the current practice based on ElexV, DIN VDE 0165: 1991 and the new EN 1127-1:

| Device Group II                                  |                   |                                       |                                |                       |
|--|-------------------|---------------------------------------|--------------------------------|-----------------------|
| Category   | Protection degree | Adequate safety for                   | Comparable to current practice | New, based on EN 1127 |
| 1 Ex atmosphere is very probable, swirled dust   | Highest           | Two protective measures<br>Two faults | Group II,<br>Zone 0<br>Zone 10 | Zone 0<br>Zone 20     |
| 2 Occasional Ex atmosphere                       | Increased         | Equipment failure or fault            | Group II,<br>Zone 1            | Zone 1<br>Zone 21     |
| 3 Low probability of Ex atmosphere, settled dust | Normal            | Fault-free operation                  | Group II,<br>Zone 2<br>Zone 11 | Zone 2<br>Zone 22     |



## General Technical Information on Electrical Equipment Used in Hazardous Areas (continued)

It is expressly prohibited to use insulating parts for transferring contact forces. Terminal blocks with sharp edges which could damage supply lines and those types that can be rotated, turned or permanently deformed when fixed in place are not permitted for use. Terminal blocks for internal connections in electrical equipment must not be subjected to excessive mechanical stress. These items must fulfill the requirements for terminal blocks used for external supply conductors.

Clearances between conductive parts having different potentials must be at least 3 mm for external connections, as specified in Table 1. The value of the creepage distances depends on the working voltage, surface geometry of the insulating parts and tracking resistance of the insulation material.

Grooves on the surface may only be considered if they are at least 2.5 mm deep and wide; ribs on the surface only if their height is at least 2.5 mm and their width corresponds to the mechanical strength of the material, however not smaller than 1 mm.

**Table 1: Clearances and Creepage Distances**

| Voltage <sup>1)</sup><br>RMS Value for<br>AC or DC Voltage | Minimum Creepage Distance<br>mm |      |      | Minimum Clearance |
|--|---------------------------------|------|------|-------------------|
|  | Material Group                  |      |      |                   |
|  | V                               | I    | II   | III a             |
| 10 <sup>2)</sup>   | 1,6                             | 1,6  | 1,6  | 1,6               |
| 12,5   | 1,6                             | 1,6  | 1,6  | 1,6               |
| 16   | 1,6                             | 1,6  | 1,6  | 1,6               |
| 20   | 1,6                             | 1,6  | 1,6  | 1,6               |
| 25   | 1,7                             | 1,7  | 1,7  | 1,7               |
| 32   | 1,8                             | 1,8  | 1,8  | 1,8               |
| 40   | 1,9                             | 2,4  | 3    | 1,9               |
| 50   | 2,1                             | 2,6  | 3,4  | 2,1               |
| 63   | 2,1                             | 2,6  | 3,4  | 2,1               |
| 80   | 2,2                             | 2,8  | 3,6  | 2,2               |
| 100  | 2,4                             | 3    | 3,8  | 2,4               |
| 125  | 2,5                             | 3,2  | 4    | 2,5               |
| 160  | 3,2                             | 4    | 5    | 3,2               |
| 200  | 4                               | 5    | 6,3  | 4                 |
| 250  | 5                               | 6,3  | 8    | 5                 |
| 320  | 6,3                             | 8    | 10   | 6                 |
| 400 (440) <sup>1)</sup>                                    | 8                               | 10   | 12,5 | 6                 |
| 500 (550) <sup>1)</sup>                                    | 10                              | 12,5 | 16   | 8                 |
| 630 (690) <sup>1)</sup>                                    | 12                              | 16   | 20   | 10                |
| 800  | 16                              | 20   | 25   | 12                |
| 1000   | 20                              | 25   | 32   | 14                |
| 1250   | 22                              | 26   | 32   | 18                |
| 1600   | 23                              | 27   | 32   | 20                |
| 2000   | 25                              | 28   | 32   | 23                |
| 2500   | 32                              | 36   | 40   | 29                |
| 3200   | 40                              | 45   | 50   | 36                |
| 4000   | 50                              | 56   | 63   | 44                |
| 5000   | 63                              | 71   | 80   | 50                |
| 6300   | 80                              | 90   | 100  | 60                |
| 8000   | 100                             | 110  | 125  | 80                |
| 10000  | 125                             | 140  | 160  | 100               |

1) The listed voltages are taken from IEC 60664-1. The working voltage \*) may exceed the voltage indicated in the table by 10%. This is based on the simplification of the supply voltages in accordance with Table 3b for IEC 60664-1. The listed values for creepage distances and clearances are based on a maximum limit deviation for supply voltage of  $\pm 10\%$ .

2) CTI values are not applicable for voltages of 10 V or less. Materials that do not meet the requirements of material group III a can be used.

Classification of insulation materials according to their tracking resistance is based on their Comparative Tracking Index (CTI) and is defined in Table 2 as follows:

This classification applies to insulating parts without ribs or grooves.

If the insulating parts have ribs or grooves sufficiently large to be considered, the minimum creepage distances must be set according to values for the insulation materials in the next-higher level (e.g., Group I, instead of Group II).

Accounting for the ambient temperature of 40°C (104°F) specified for electrical equipment, the current-carrying capacity of rubber-insulated conductors is reduced to 82%, based on DIN VDE 0298-4:2013-06, Table 12 and to 87% for PVC-insulated conductors for the current-carrying capacity defined for 30°C (86°F) in accordance with DIN VDE 0298-4:2013-06, Item 4.3.3.

**Table 2: Tracking Resistance for Insulation Materials**

| Material Group | Comparative Tracking Index  |
|----------------|-----------------------------|
| I              | $600 \leq \text{CTI}$       |
| II             | $400 \leq \text{CTI} < 600$ |
| III a          | $175 \leq \text{CTI} < 400$ |

### Conductor Types and Conductor Preparation

In accordance with EN 60079-14/ DIN VDE 0165-1, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient. The conductor entry funnels of WAGO PCB terminal blocks fulfill this requirement.

According to EN 60069-7/DIN VDE 0170-6, connecting electrical equipment to terminal blocks having an "e" (increased safety) protection type must not lead to a reduction of the clearances and creepage distances. Based on experience through the application of terminal blocks in aggressive atmospheres in the chemical industry, WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.

**Approvals**

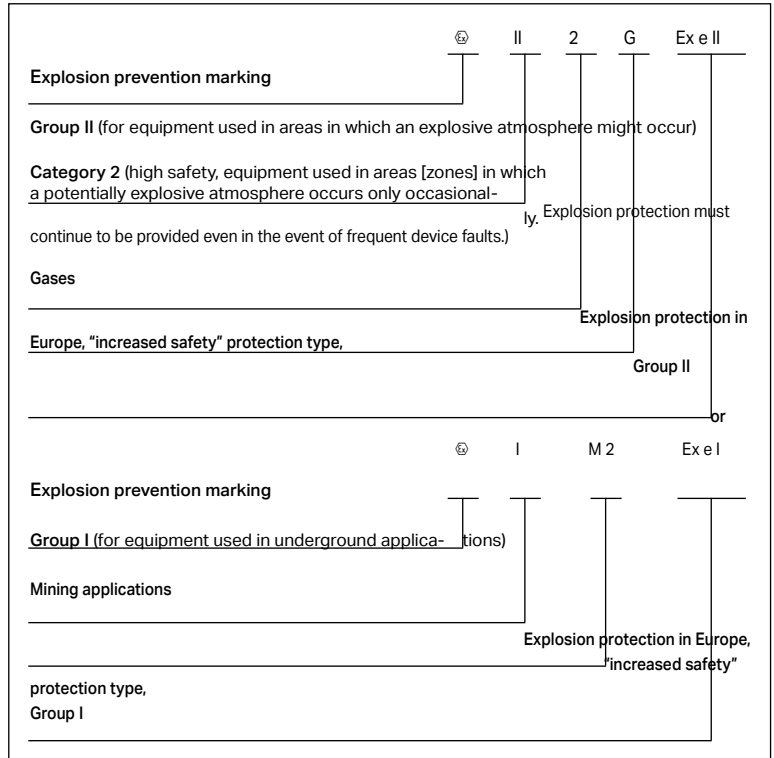
Terminal blocks may be used in Zones 1 and 2, provided that the terminal blocks are accommodated in an enclosure that has a minimum IP54 protection and an Ex e certification.

Terminal blocks are considered to be Ex components because they are a part of the equipment. Part certificates provided by Ex Certification Agencies serve as a basis for issuing the complete conformity declaration for the unit.

An EC-type examination certificate is issued in accordance with the 2014/34/EU ATEX Directive.

In addition, an IEXEx certificate may also be obtained from an appropriate, recognized certification agency in accordance with the IECEx Certification Agreement that is accepted throughout Europe and also in countries such as Canada, China and Australia. These certificates can also be viewed at: [www.iecex.com](http://www.iecex.com)

**Terminal block marking per 2014/34/EU ATEX Directive:**

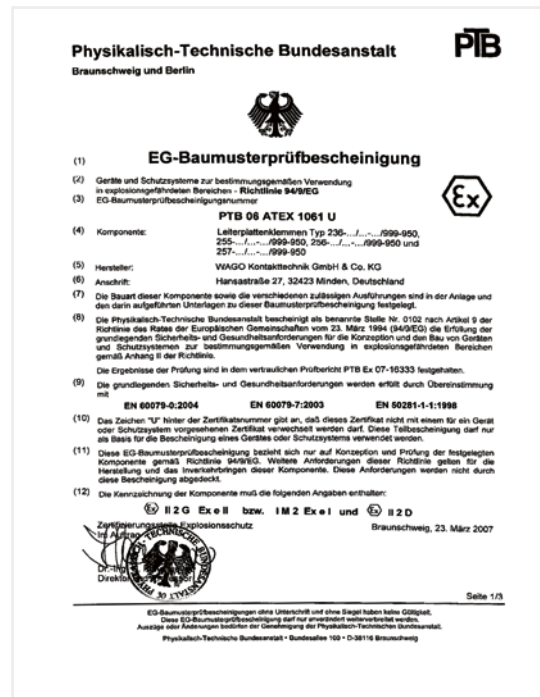
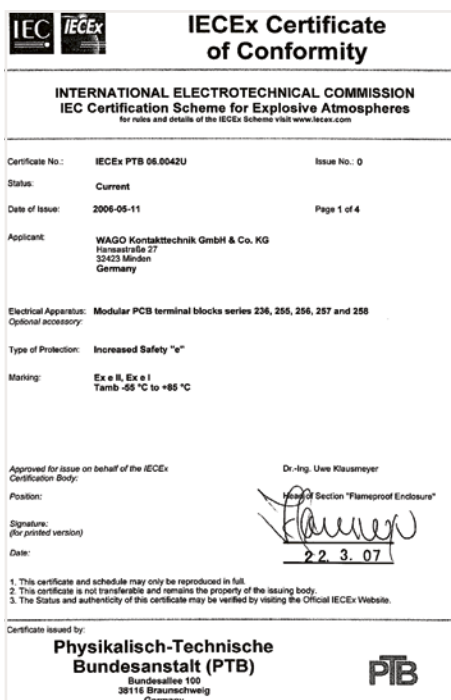


Marking only with the Ex code 4 is also adequate as an alternative.

EC-type examination certificates have been granted to all WAGO terminal blocks listed in this catalog. WAGO terminal blocks approved for use in Ex e II areas are manufactured of flame-resistant, self-extinguishing Polyamide 66. The same applies to the terminal blocks used in

non-hazardous areas. Tracking resistance with a CTI value of 600 as per IEC 60112 and a constant operating temperature of 105°C (22°F) in accordance with IEC 60216-1 and -2 are provided. Factory part quality tests are performed on all PCB terminal blocks with Ex e II approval

to monitor and ensure the quality features described above.



## General Technical Information on Electrical Equipment Used in Hazardous Areas (continued)

### Special Requirements "Intrinsic safety Ex i"

The European standard EN 60079-11 – Classification DIN EN 60079-11 (VDE 0170-7) – contains special requirements for the design and testing of electrical equipment with "i" (intrinsic safety) protection type for use in hazardous areas.

A circuit is "intrinsically safe" when, under normal operating conditions and in the event of specific fault conditions, no sparks or thermal effects can occur and cause the ignition of a certain explosive atmosphere.

A distinction is made here between:

- intrinsically safe electrical equipment when all circuits are intrinsically safe
- associated electrical equipment including both intrinsically and non-intrinsically safe circuits, and being designed such that the non-intrinsically safe circuits cannot affect the intrinsically safe ones.

Intrinsically safe electrical equipment and intrinsically safe parts of associated electrical equipment are classified at "ia" or "ib" protection level. Electrical equipment classified Ex "ia" must not ignite when current is applied in the following cases:

- a) During fault-free operation, with those non-discreet faults present that result in the most adverse condition
- b) During fault-free operation and with a discreet fault,

plus those non-discreet faults that result in unfavorable conditions.

- c) During fault-free operation with two discreet faults, plus those non-discreet faults that result in the most adverse conditions.

Electrical equipment classified Ex "ib" must not ignite when current is applied in the following cases:

- a) During fault-free operation, with those non-discreet faults present that result in the most adverse condition
- b) During fault-free operation and with a discreet fault, plus those non-discreet faults that result in unfavorable conditions.

**No special approval is required for terminal blocks used as simple electrical equipment for "Ex i" protection type, as they do not contain a voltage source and precise information is available concerning electrical data and temperature rise performance.**

The terminal blocks must be identifiable, for example by their type designation, and the following design requirements must also be upheld:

- The clearance between bare, conducting parts of terminal blocks of different intrinsically safe circuits has to be equal or higher than the values specified in the standard. In addition, clearances between the terminal blocks must be so that the clearances between the bare, conductive parts of the connected external conductors is at least 6 mm when measured. Each possible motion of metallic parts that are not rigidly secured must be considered.
- When a possible connection has not been considered during safety analysis, the minimum clearance between grounded metallic or other conducting parts and the uninsulated conducting parts of the conductors that are connected to the terminal blocks must be 3 mm.

**Terminal block marking must be unique and clearly visible. If a color is used for this, the color must be light blue (similar to**

**RAL 5015).**

Note also when using terminal blocks:

Terminal blocks used for intrinsically safe circuits must be isolated from those used in non-intrinsically safe circuits. This is accomplished by several accepted methods. First, intrinsically safe circuits are separated by at least 50 mm of air space from non-intrinsically safe circuits. Second, intrinsically safe circuits are housed in a separate enclosure. Third, intrinsically safe terminal blocks are separated from non-intrinsically safe terminal blocks by either an insulated partition or grounded metal partition. The partition size must allow for either 1.5 mm or less distance from the sides of the housing or provide at least 50 mm of creepage distance between the intrinsically and non-intrinsically safe circuits in all directions.

Requirements pertaining to the necessary distances as appropriate for use of the terminal blocks in the area DIN EN 60079-11 (VDE 0170-7) "Explosive atmosphere – Part 11: Device protection by intrinsically safe features "i" (IEC 60079-11)" are defined under Section 6.2 "Connecting point for external circuits," Section 6.2.1 "Terminal blocks." In general, the following can be stated for terminal blocks based on figure 1: "Example of isolated intrinsically safe terminal blocks with partition" in conjunction with figure 2: "Example of isolation of conductive parts," considering Table 5 – "Clearances, Creepage and Isolation Distances."

#### Outside

a) Isolated intrinsically safe circuits: at least 6 mm

**All PCB terminal blocks listed on the ordering pages as suitable for Ex "i" applications fulfill these requirements.**

b) Intrinsically safe circuits and normal circuits (non-intrinsically safe):  $\geq 50$  mm

#### Inside:

a) Ex "i" to Ex "i"

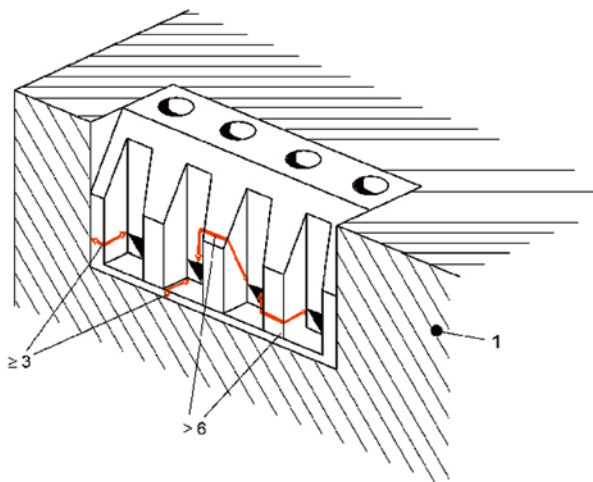
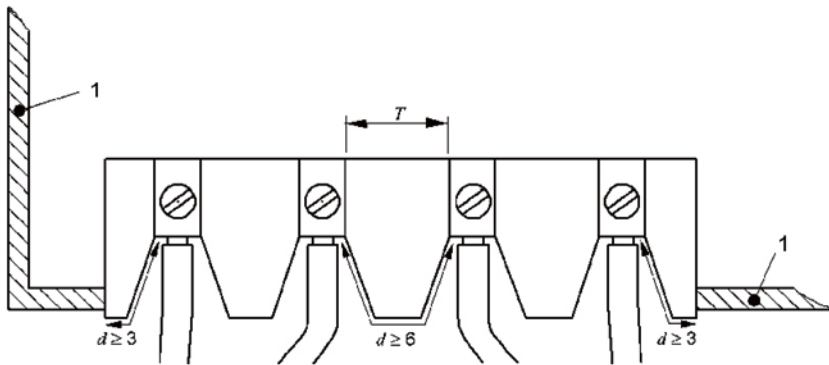
b) Ex "i" to normal circuits

c) Ex "i" to ground

Based on Figure 2 and Table 5 (see next page) in accordance with the selected protection level and the special requirements for isolation distances as described in Sections 6.3.1 to 6.3.13, or in accordance with the alternative procedure for dimensioning of isolation distances given in Annex F.

Terminal blocks with smaller pin spacing may also be used for internal connections, provided they meet the requirements laid out in Table 5 (see below).

The exact clearances and creepage distances as well as separation distances based on Table 5 must be derived from the application items cited above.



#### Legend:

1: Conductive cover

T: Distances based on Table 5

d: Distance at outer connecting parts of the terminal blocks according to 6.2.1

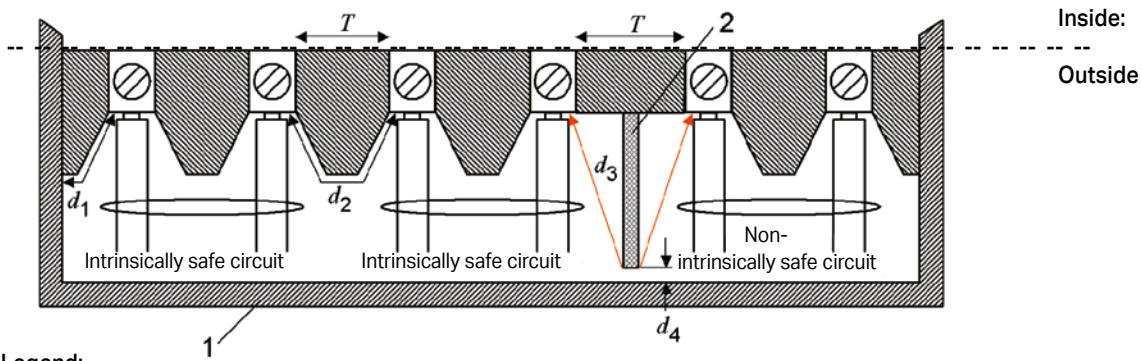
#### Note:

The dimensions indicated here represent the clearances and creepage distances around the insulation and not the thickness of the insulation.

Dimensions in mm

Figure 1a – Requirements for clearances and creepage distances for terminal blocks with isolated, intrinsically safe circuits

# General Technical Information on Electrical Equipment Used in Hazardous Areas (continued)



**Legend:**

- 1 Cover: non-conductive or conductive and grounded
- 2 Partition based on 6.2.1 b); in this example, the partition must end at the base
- T Distances based on Table 5
- $d_1 \geq 3 \text{ mm}$ , when the cover is conductive and grounded
- $d_2 \geq 6 \text{ mm}$
- $d_3 \geq 50 \text{ mm}$  or  $d_4 \leq 1.5 \text{ mm}$

**Note:**

The dimensions indicated here represent the clearances around the insulation and not the thickness of the insulation.

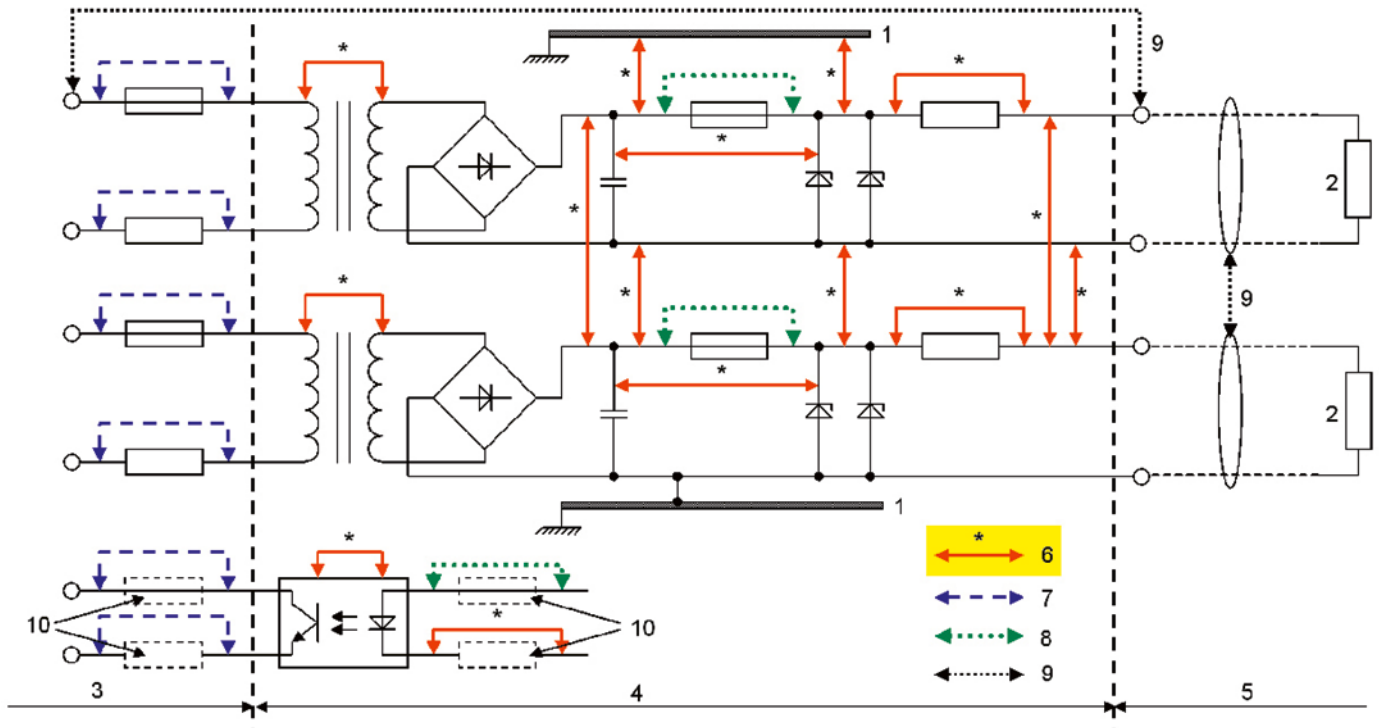
**Figure 1b – Example of isolated intrinsically safe and non-intrinsically safe terminal blocks by a partition**

**Table 5 – Clearances, Creepage and Isolation Distances**

| 1<br>Voltage (Peak)<br>V | 2<br>Clearance<br>mm |      | 3<br>Separation by Encapsulation<br>mm |     | 4<br>Separation by Fixed Insulation<br>mm |     | 5<br>Creepage Distance through Air<br>mm |       | 6<br>Creepage Distance beneath Protective Layer<br>mm |     | 7<br>Comparative Tracking Index (CTI) |        |
|--------------------------|----------------------|------|--|-----|---|-----|--|-------|---|-----|---------------------------------------|--------|
|                          | ia, ib               | ic   | ia, ib                                 | ic  | ia, ib                                    | ic  | ia, ib                                   | ic    | ia, ib  | ic  | ia                                    | ib, ic |
| 10                       | 1,5                  | 0,4  | 0,5                                    | 0,2 | 0,5                                       | 0,2 | 1,5                                      | 1,0   | 0,5   | 0,3 | --                                    |        |
| 30                       | 2,0                  | 0,8  | 0,7                                    | 0,2 | 0,5                                       | 0,2 | 2,0                                      | 1,3   | 0,7   | 0,3 | 100                                   | 100    |
| 60                       | 3,0                  | 0,8  | 1,0                                    | 0,3 | 0,5                                       | 0,3 | 3,0                                      | 1,9   | 1,0   | 0,6 | 100                                   | 100    |
| 90                       | 4,0                  | 0,8  | 1,3                                    | 0,3 | 0,7                                       | 0,3 | 4,0                                      | 2,1   | 1,3   | 0,6 | 100                                   | 100    |
| 190                      | 5,0                  | 1,5  | 1,7                                    | 0,6 | 0,8                                       | 0,6 | 8,0                                      | 2,5   | 2,6   | 1,1 | 175                                   | 175    |
| 375                      | 6,0                  | 2,5  | 2,0                                    | 0,6 | 1,0                                       | 0,6 | 10,0                                     | 4,0   | 3,3   | 1,7 | 175                                   | 175    |
| 550                      | 7,0                  | 4,0  | 2,4                                    | 0,8 | 1,2                                       | 0,8 | 15,0                                     | 6,3   | 5,0   | 2,4 | 275                                   | 175    |
| 750                      | 8,0                  | 5,0  | 2,7                                    | 0,9 | 1,4                                       | 0,9 | 18,0                                     | 10,0  | 6,0   | 2,9 | 275                                   | 175    |
| 1000                     | 10,0                 | 7,0  | 3,3                                    | 1,1 | 1,7                                       | 1,1 | 25,0                                     | 12,5  | 8,3   | 4,0 | 275                                   | 175    |
| 1300                     | 14,0                 | 8,0  | 4,6                                    | 1,7 | 2,3                                       | 1,7 | 36,0                                     | 13,0  | 12,0  | 5,8 | 275                                   | 175    |
| 1575                     | 16,0                 | 10,0 | 5,3                                    | *   | 2,7                                       | *   | 49,0                                     | 15,0  | 16,3  | *   | 275                                   | 175    |
| 3.3k                     | *                    | 18,0 | 9,0                                    | *   | 4,5                                       | *   | *  | 32,0  | *   | *   | *                                     | *      |
| 4.7k                     | *                    | 22,0 | 12,0                                   | *   | 6,0                                       | *   | *  | 50,0  | *   | *   | *                                     | *      |
| 9.5k                     | *                    | 45,0 | 20,0                                   | *   | 10,0                                      | *   | *  | 100,0 | *   | *   | *                                     | *      |
| 15.6k                    | *                    | 70,0 | 33,0                                   | *   | 16,5                                      | *   | *  | 150,0 | *   | *   | *                                     | *      |

Note 1: \*At present, no values have been recommended for these voltages.

Note 2: Proof of fulfillment of the CTI requirements for the insulating materials must be provided by the manufacturer. Defining a CTI is not required for insulation materials for voltage levels up to 10 V.

**Legend:**

- 1: Chassis
- 2: Load
- 3: Non-intrinsically safe circuit defined by  $U_m$
- 4: Portion of intrinsically safe circuit, item is not intrinsically safe
- 5: Intrinsically safe circuit
- 6: Dimensions for which Table 5 applies
- 7: Dimensions for which general industrial standards apply
- 8: Dimensions per 7.3
- 9: Dimensions based on 6.2.1 for output terminal blocks between isolated intrinsically safe circuits ( $d_2 \geq 6 \text{ mm}$ ) and between intrinsically safe circuits and non-intrinsically safe circuits ( $d_3 \geq 50 \text{ mm}$ )
- 10: Where required























**Figure 2 – Isolation examples for conductive parts**

In accordance with DIN EN 60079-14 (VDE 0165-1), in intrinsically safe circuits, the ends of stranded and fine-stranded conductors must be protected against splaying (e.g., via cable lugs or ferrules) or by the type of terminal blocks used. Soldering alone is not sufficient. The conductor entry funnels of WAGO PCB terminal blocks fulfill this requirement.



WAGO recommends gas-tight tinned copper ferrules or tinned copper pin terminals when connecting fine-stranded conductors to terminal blocks in corrosive atmospheres.



## International Certification Organizations – Overview

|   |  | Abbreviation                |   |  | Abbreviation                |
|---|--|-----------------------------|---|--|-----------------------------|
|    | Underwriters Laboratories<br>USA<br><a href="http://www.ul.com">http://www.ul.com</a>  | UL                          |    | Danmarks Elektriske Materielkon-<br>trol<br>Denmark<br><a href="http://www.demko.dk">http://www.demko.dk</a>   | DEMKO                       |
|    | Underwriters Laboratories<br>USA<br><a href="http://www.ul.com">http://www.ul.com</a>  | UL                          |    | CENELEC CERTIFICATION AGREE-<br>MENT<br>Danmarks Elektriske Materielkon-<br>trol<br>Denmark<br><a href="http://www.cenelec.org">http://www.cenelec.org</a>   | CCA<br>Appr. No.<br>with NL |
| Y   | Underwriters Laboratories<br>USA<br><a href="http://www.ul.com">http://www.ul.com</a>  | cURus                       |   |  |                             |
|    | Underwriters Laboratories<br>USA<br><a href="http://www.ul.com">http://www.ul.com</a>  | cULus                       |    | SETI – FEMKO<br>Elinspekkingscentralen sachötär-<br>kastuskesus<br>Finland<br><a href="http://www.seti.fi">http://www.seti.fi</a>  |                             |
|    | Canadian Standards Association<br>Canada<br><a href="http://www.csa.ca">http://www.csa.ca</a>  | CSA                         |    | Elinspekkingscentralen sachötär-<br>kastuskesus<br>Finland<br><a href="http://www.fimko.com">http://www.fimko.com</a>  | FIMKO                       |
|    | VDE-Gutachten mit Ferti-<br>gungsüberwachung<br>Germany<br><a href="http://www.vde.de/vde/html/e/home.htm">http://www.vde.de/vde/html/e/<br/>home.htm</a>                    | VDE                         | <b>SABS</b>   | South African Bureau of Standards<br>South Africa<br><a href="http://www.sabs.co.za">http://www.sabs.co.za</a>   | SABS                        |
|   | VDE – Deutscher Verband für<br>Elektrotechnik<br>Germany<br><a href="http://www.vde.de">http://www.vde.de</a>  |                             |  | RosTest<br>Russia<br><a href="http://www.rostest.ru">http://www.rostest.ru</a>   | PROTEST                     |
| VDE   | VDE – Prüfbericht<br>Germany   |                             |  | Departamentul Moldovastandard<br>Moldova<br><a href="http://www.moldova.md/ro/govern-&lt;br/&gt;ment/oll/D_STAND/en/strcent2.htm">http://www.moldova.md/ro/govern-<br/>ment/oll/<br/>D_STAND/en/strcent2.htm</a> | CSM                         |
|  | Austrian Association of Electrical<br>Engineering<br>Austria<br><a href="http://www.ove.at">http://www.ove.at</a>  | ÖVE                         |  | Certificate of Registration<br>Great Britain<br><a href="http://www.astacertification.com">http://www.astacertification.com</a>  | ASTA                        |
|  | Swiss Electrical Engineering<br>Association<br>Switzerland<br><a href="http://www.sev.ch/">http://www.sev.ch/</a>  | SEV                         |  | Rheinisch-Westfälischer Tech-<br>nischer Überwachungsverein e.V.<br>Germany<br><a href="http://www.rwtuv.de">http://www.rwtuv.de</a>   | RWTÜV                       |
|  | N.V. tot Keuring van Elektrotech-<br>nische Materialen<br>Netherlands<br><a href="http://www.kema.nl">http://www.kema.nl</a>   | KEMA                        |  | Elektrotechnick´y v´yskumn´y a<br>projectov´y ústav<br>Czech Republic<br><a href="http://www.ezu.cz">http://www.ezu.cz</a>   | EZU                         |
| CCA   | CENELEC CERTIFICATION AGREE-<br>MENT<br>N.V. tot Keuring van Elektrotech-<br>nische Materialen<br>Netherlands<br><a href="http://www.cenelec.org">http://www.cenelec.org</a> | CCA<br>Appr. No.<br>with NL |  | Stowarzyszenie Elektrykow Pol-<br>skich<br>Poland<br><a href="http://www.sep.com.pl">http://www.sep.com.pl</a>   | BBJ                         |
|  | Norges Elektriske Materialkontroll<br>Norway<br><a href="http://express.nemko.com">http://express.nemko.com</a>  | NEMKO                       |  | Stowarzyszenie Elektrykow Pol-<br>skich<br>Poland<br><a href="http://www.bbj.pl">http://www.bbj.pl</a>   | SEP                         |
|  | Svenska Elektriska Materielkon-<br>trollanstalten AB<br>Sweden<br><a href="http://www.semko.com">http://www.semko.com</a>  | SEMKO                       |   |  |                             |

For complete, up-to-date approval information, visit [www.wago.com](http://www.wago.com).

|   |  | Abbreviation |   | Abbreviation  |              |
|---|--|--------------|---|---|--------------|
| <b>CNET</b>   | Centre National d'Etudes des Télécommunications<br>France<br><a href="http://www.lannion.cnet.fr">http://www.lannion.cnet.fr</a> | CNET         | ,   | Robbanásbiztos Villamos Berendezések<br>Hungary<br><a href="http://www.bki.hu">http://www.bki.hu</a>                                    | BKI          |
| <b>LCIE</b>   | Laboratoire Central des Industries Electriques<br>France<br><a href="http://www.lcie.fr">http://www.lcie.fr</a>                  | LCIE         | CB  | CB – TEST CERTIFICATE<br>India<br><a href="http://www.ul-europe.com">http://www.ul-europe.com</a>                                       | CB           |
|  | Fyzikálne Technické Ústav, Ostrava-Radvanice<br>Czech Republic<br><a href="http://www.ftzu.cz">http://www.ftzu.cz</a>            | FTZU         | CB  | CB – TEST CERTIFICATE<br>China<br><a href="http://www.ul-europe.com">http://www.ul-europe.com</a>                                       | CB           |
|   |  |              |  | UL-International Demko A/S<br>Denmark<br><a href="http://www.ul-europe.com">http://www.ul-europe.com</a>                                | ENEC         |
| <b>Marine Approvals</b>   |  |              |   |   |              |
|   | Germanischer Lloyd<br>Germany<br><a href="http://www.gl-group.com">http://www.gl-group.com</a>                                   | GL           | Ex Approvals  |   |              |
|   | Bureau Veritas<br>France<br><a href="http://www.bureauveritas.fr">http://www.bureauveritas.fr</a>                                | BV           | P   | Physikalisch Technische Bundesanstalt<br>Germany<br>Ex e II<br><a href="http://www.ptb.de">http://www.ptb.de</a>                        | PTB          |
|   | Lloyd's Register of Shipping<br>Great Britain<br><a href="http://www.lloydsregister.com">http://www.lloydsregister.com</a>       | LR           | Y   | Underwriters Laboratories<br>USA<br><a href="http://www.ul.com">http://www.ul.com</a>   | cURus-EX     |
|   | NV – Det Norske Veritas<br>Norway<br><a href="http://www.dnv.com">http://www.dnv.com</a>   | DNV          | K   | N.V. tot Keuring van Elektrotechnische Materialen<br>Netherlands<br><a href="http://www.kemaquality.com">http://www.kemaquality.com</a> | KEMA-EX      |
|   | Russian Maritime Register of Shipping<br>CIS<br><a href="http://www.rs-head.spb.ru">http://www.rs-head.spb.ru</a>                | RMR          | GOSENERGO-Ex<br>GOSENERGONADZOR<br>Russia   |   | GOSENERGO-EX |
|   | Polski Rejestr Statków<br>Poland<br><a href="http://www.prs.pl">http://www.prs.pl</a>  | PRS          | -   | Fyzikálne Technické Ústav, Ostrava-Radvanice<br>Czech Republic<br><a href="http://www.ftzu.cz">http://www.ftzu.cz</a>                   | FTZU         |
|   | Korean Register of Shipping<br>Korea<br><a href="http://www.krs.co.kr">http://www.krs.co.kr</a>                                  | KR           | ,   | Robbanásbiztos Villamos Berendezések<br>Hungary<br><a href="http://www.bki.hu">http://www.bki.hu</a>                                    | BKI-Ex       |
|   | American Bureau of Shipping<br>USA<br><a href="http://www.eagle.org">http://www.eagle.org</a>                                    | ABS          |   |   |              |

## Electrical Engineering Laboratory Product Safety for Our Customers

To use terminal blocks globally, they must satisfy certain standards and obtain test certificates. These requirements apply to every manufacturer. WAGO also conducts its own tests to increase standards and offer greater reliability with its products. Products undergo a full range of mechanical, electrical and climatic testing, and we'll share a few of those processes with you.

### Pull-Out Test (per EN 60947-7-1, EN 60998-2-2)

During the pull-out force test, a conductor is pulled on until it is removed from the clamping unit. The design of the terminals means that extraction only occurs after the standard pull-out force has been exceeded many times over.

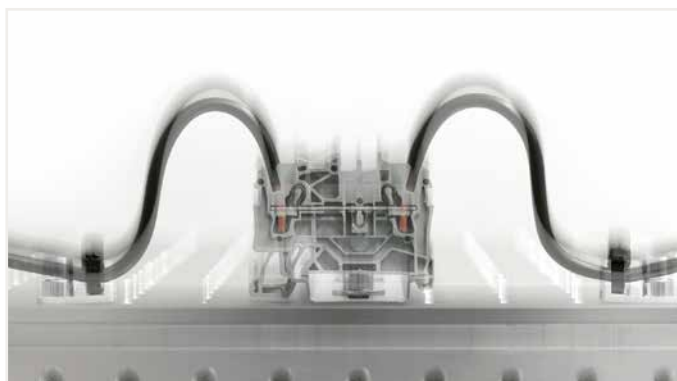
### WAGO Test Lab

This means that WAGO's products can be used safely and reliably both in Europe and anywhere globally for a wide variety of applications. We heavily emphasize the importance of global acceptance during development. As a result, we can present documentation that verifies our high levels of product safety and reliability while ensuring the fulfillment and accuracy of technical data, which are the highest priorities for our customers and users worldwide. On December 22, 2009, our test lab was accredited by the German Accreditation Association (Deutsche Gesellschaft für Akkreditierung GmbH) in accordance with DIN EN ISO/IEC 17025.



### Vibration Test (per IEC/EN 60068-2-6)

Depending on the application, such as railway (per EN 61373) or marine (per GL, LR, DNV), there are various testing requirements to determine if the long-term effects of vibrations degrade electrical connections. The test specimen is subjected to different loads on three axes in an electrodynamic vibration system. The amplitude, the acceleration, and particularly the frequency of the vibration vary during the test. The test values are increased many times over the standard values to meet special customer requirements.



### Shock Test (per IEC/EN 60068-2-27)

The shock test is very similar to the vibration test except that, instead of continuous vibrations, single shocks are applied to the test specimen. Shock tests are usually performed, for example, at an acceleration of 20g over a period of 11 ms. Tests for special requirements often call for much higher values and are also conducted in our laboratory.



### Voltage Drop Test under Bending Stress (per WAGO test requirements)

The voltage drop test under bending stress simulates mechanical stress on the clamping unit. In everyday use, this stress can occur during installation, for example, when an electrician shoves connected conductors to the side in order to access a specific component. The quality of the clamping unit when moving a connected conductor can be validated by the constantly stable measured value of the voltage drop.





## Deutsche Akkreditierungsstelle GmbH

**Beliehene gemäß § 8 Absatz 1 AkkStelleG i.V.m. § 1 Absatz 1 AkkStelleGBV**  
 Unterzeichnerin der Multilateralen Abkommen  
 von EA, ILAC und IAF zur gegenseitigen Anerkennung

# Akkreditierung



Die Deutsche Akkreditierungsstelle GmbH bestätigt hiermit, dass das Prüflaboratorium

**WAGO Kontakttechnik GmbH & Co. KG**  
**Hansastraße 27, 32423 Minden**

die Kompetenz nach DIN EN ISO/IEC 17025:2005 besitzt, Prüfungen in folgenden Bereichen durchzuführen:

**Elektrische und mechanische Prüfungen an Klemmen und Steckverbinder  
 sowie Umweltsimulation**

Die Akkreditierungsurkunde gilt nur in Verbindung mit dem Bescheid vom 18.12.2014 mit der Akkreditierungsnummer D-PL-19704-01 und ist gültig bis 17.12.2019. Sie besteht aus diesem Deckblatt, der Rückseite des Deckblatts und der folgenden Anlage mit insgesamt 5 Seiten.

Registrierungsnummer der Urkunde: **D-PL-19704-01-00**

Frankfurt am Main, 18.12.2014

Im Auftrag Dipl.-Ing. (FH) Ralf Egner  
 Abteilungsleiter

Siehe Hinweise auf der Rückseite



## Success for generations: environmental protection at WAGO



At WAGO, we see environmental protection not only as compliance with environmental protection requirements.

As a growing company, our commitment to the environment drives our efforts to deliver new ideas, new concepts and new technologies along the product lifecycle. Here our employees and business partners support us.

### Corporate environmental protection

Business growth also leads to higher consumption of resources. We have realized that the economic success of a company also depends on the achievement of environmental goals.

As a manufacturing company, we therefore support developments that make a contribution to environmental protection. In doing so, we always pursue individual material flows along the value chain, because we see resources, product design, production and consumption as a whole.

With our environmental management system certified in accordance with DIN EN ISO 14001, we ensure that the required national and international requirements are complied with in all areas of the company and that the concept of environmental protection is practiced in all corporate processes. In addition, WAGO is pursuing further efforts in the field of environmental protection that go far beyond the requirements of ISO

Some examples include the recycling of plastics, resource savings on product and packaging materials, the use of recycled paper throughout the company, the introduction of e-filling stations and the use of waste heat from production processes.

### Product-related environmental protection

Product-related environmental protection is an important part of sustainable environmental management at WAGO. Ensuring compliance with substance bans / restrictions worldwide, such as: As REACH, RoHS has a high priority.

## Success for generations: environmental protection at WAGO

### RoHS – Restriction of the use of certain Hazardous Substances

It is an EC directive that regulates the use of certain hazardous substances in electrical and electronic equipment. In addition to reducing the harmful effects on humans and the environment, legislation aims to improve recycling possibilities. WAGO closely monitors the development regarding RoHS and reacts promptly to specifications accordingly. For more information about RoHS please contact us via [ehs-product-compliance@wago.com](mailto:ehs-product-compliance@wago.com).

RoHS   
Compliant

### REACH – Registration, Evaluation and Authorisation of Chemicals

On 01.06.2007 the regulation (EC) no. 1907/2006 (REACH regulation) came into force and since then forms a valid legal basis for all EU member states. To protect human health and the environment, this EU Chemicals Regulation aims to classify and identify all chemicals, including their effects.

The REACH Regulation creates specific obligations for each actor in the supply chain. The products manufactured by WAGO are to be designated as products in the sense of the regulation. Since products are not subject to registration, WAGO usually assumes the role of the downstream user in the supply chain. WAGO therefore has an obligation to provide information along the supply chain in accordance with REACH Article 33. WAGO is naturally aware of this obligation.

For more information about our reporting requirements according to REACH Article 33 please visit our website "REACH SVHC Declaration" via [www.wago.com/svhc](http://www.wago.com/svhc)

### BOMcheck

European legislation such as REACH or RoHS requires the provision of information on restricted ingredients in products. This information must be shared by manufacturers and suppliers in the supply chain. WAGO meets this challenge in product-related environmental protection successfully and efficiently with BOMcheck.

BOMcheck .net

BOMcheck is a centralized database for the declaration of ingredients. It is a compliance tool specifically designed to enable manufacturers and suppliers to produce their substance declarations under REACH, RoHS, and other restrictions on ingredients in an efficient and structured manner. This Internet database system increases data quality in the area of product-related environmental protection.

Further information on BOMcheck can be found at the following link: <http://www.bomcheck.net>

### Less is more: our packaging

Recycling is the basis for choosing our packaging materials. All packaging used by WAGO can be recycled in the economic cycle without further pretreatment. In addition to the aspect of recycling, emphasis is placed on resource conservation. For this reason, our cardboard boxes consist of 80% recycled paper and are marked with the Resy symbol. The Resy symbol guarantees compliance with the Packaging Ordinance for transport packaging. The labeling is partly done by perforation. This process enables the colorless printing of WAGO cardboard boxes. This avoids unnecessary environmental pollution.





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