

Solid Flowmeters



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## Solid Flowmeters

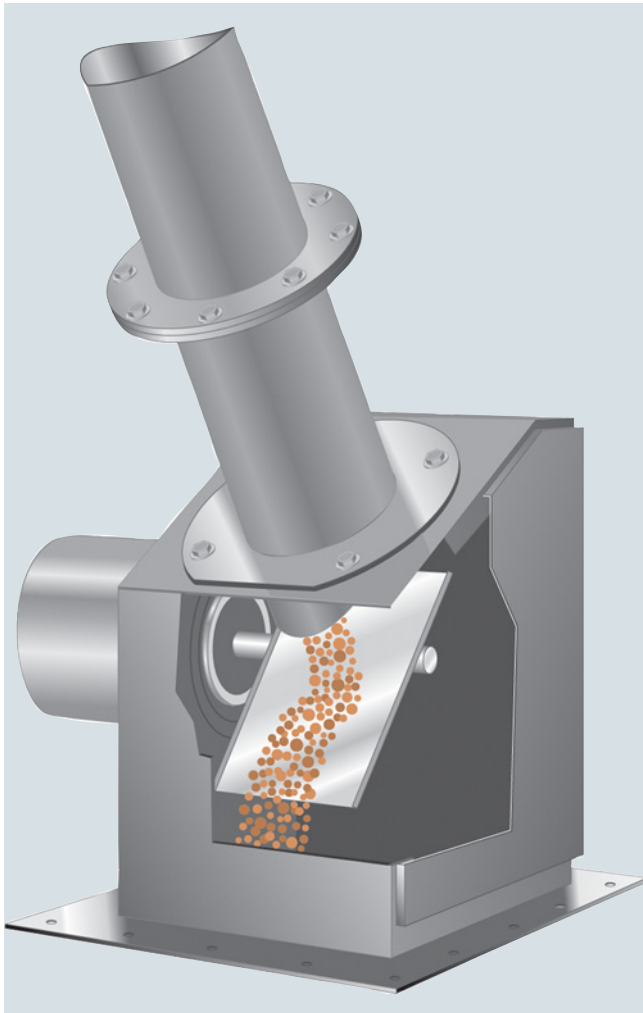
### Introduction

#### Overview

SITRANS WF solids flowmeters monitor the rate of bulk material flow in a process. They continuously measure the impact force of the material under gravity feed conditions, and convert this signal into a flow rate used to control the rate into a process or blending operation. Solids flowmeters can function in stand-alone measuring operations, or they can interface to a facility's process control system using industry standard protocols.

#### Applications

SITRANS WF flowmeters measure any dry material from powders to granulates. Material densities range from puffed wheat to iron ore, while fluidity covers the spectrum from fluidized powder, such as fly-ash, to sluggish flowing material such as lathe turnings. Typical materials monitored include cement, gravel, coke, coal, minerals, wood chips, cereals, seeds, grains, soybean and rice hulls, unshelled peanuts, starch, sugar, potato flakes, grain tailings and screenings, and plastic pellets.



Solids flowmeter with sensing plate detail

#### Mode of operation

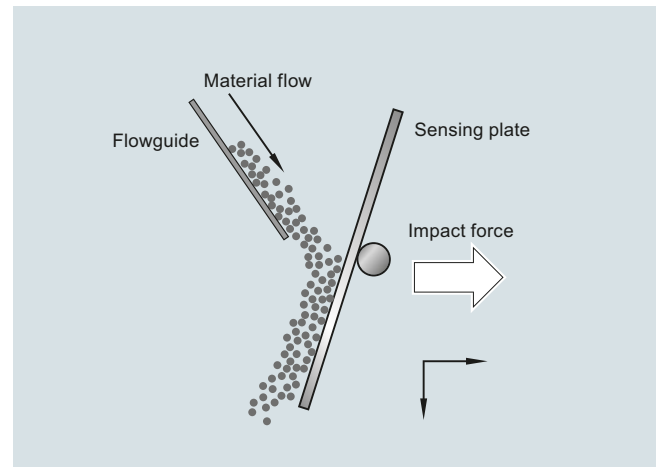
Flowmeters are installed in a gravity fed process. Entering the flowmeter through the flowguide, the material flow produces a mechanical deflection as it strikes the flowmeter's sensing plate. The SITRANS WF flowmeter converts the deflection into an electrical signal that feeds into an accompanying integrator, which instantaneously provides the flow rate and totalizes the weight.

SITRANS WF flowmeters measure only the horizontal force component of material flow striking the sensing plate. The horizontal force is dependent on particle mass and velocity, angle of particle impact against the plate, and the energy absorbing characteristics of the particle. The flowmeters respond to the mass or weight of the material striking the plate.

Because SITRANS WF flowmeter measures only the horizontal force, they are unaffected by vertical force changes caused by material buildup on the non-impact area of the sensing plate. Consequently, there is no zero drift, which in turn eliminates the need for frequent recalibration.

Siemens SITRANS WF product portfolio includes two basic types of impact flowmeters: the linear variable differential transformer (LVDT), and the strain gauge load cell. Each uses a different sensor to convert the horizontal force on the sensing plate to flow rate.

The totally enclosed design of SITRANS WF heavy-duty solids flowmeters eliminates product waste or contamination, and reduces plant maintenance. The dust-tight design creates a healthier work environment, especially when monitoring hazardous substances.



Mode of operation

### Technical specifications

#### Solids flowmeter selection guide

Criteria	SITRANS WF100	SITRANS WF200	SITRANS WF250	SITRANS WF330	SITRANS WF340	SITRANS WF350
<b>Typical industries</b>	Food, grain, milling, animal feed, plastics, glass	Aggregates, grain, cement	Cement, mineral processing	Food, grain, milling, animal feed, chemicals, plastics, glass, cement, mineral processing	Food, grain, milling, animal feed, chemicals, plastics, glass, cement, mineral processing	Cement, mineral processing, mining
<b>Typical applications</b>	Monitoring of food ingredients, pet food blending, plastic pellet production, silica sand in glass making	Grinding mill rejects in cement, load-out of grains and seeds	Cement in aerated gravity conveyor	Fly-ash, lime dosing, cement flow and control in mining, flour stream monitoring	Fly-ash load-out, lime dosing, gypsum flow	Powders and granulates conveyed by aerated gravity conveyors, fly-ash load-out, precipitator dust
<b>Typical capacity</b>	1 ... 200 t/h (4 ... 220 STPH)	200 ... 900 t/h (220 ... 990 STPH)	200 ... 900 t/h (220 ... 990 STPH)	Sensing element dependent, see 'Sensing element' chart, page 6/4.	Sensing element dependent, see 'Sensing element' chart, page 6/4.	Sensing element dependent, see 'Sensing element' chart, page 6/4.
<b>Volumetric capacity</b>	90 m <sup>3</sup> /h (3 178 ft <sup>3</sup> /h)	500 m <sup>3</sup> /h (17 657 ft <sup>3</sup> /h)	600 m <sup>3</sup> /h (21 189 ft <sup>3</sup> /h)	40 t/h: 90 m <sup>3</sup> /h (3 178 ft <sup>3</sup> /h) 300 t/h: 290 m <sup>3</sup> /h (10 241 ft <sup>3</sup> /h)	40 t/h: 96 m <sup>3</sup> /h (3 390 ft <sup>3</sup> /h) 300 t/h: 230 m <sup>3</sup> /h (8 122 ft <sup>3</sup> /h)	40 t/h: 178 m <sup>3</sup> /h (6 286 ft <sup>3</sup> /h) 300 t/h: 545 m <sup>3</sup> /h (19 246 ft <sup>3</sup> /h)
<b>Maximum particle size</b>	13 mm (0.5 inch)	25 mm (1 inch)	25 mm (1 inch)	Sensing element dependent, see 'Sensing element' chart, page 6/4.	Sensing element dependent, see 'Sensing element' chart, page 6/4.	Sensing element dependent, see 'Sensing element' chart, page 6/4.
<b>Ambient temperature</b>	-20 ... +65 °C (-4 ... +150 °F)	-40 ... +65 °C (-40 ... +150 °F)	-40 ... +65 °C (-40 ... +150 °F)	-40 ... +60 °C (-40 ... +140 °F)	-40 ... +60 °C (-40 ... +140 °F)	-40 ... +60 °C (-40 ... +140 °F)
<b>Maximum process temperature</b>	65 °C (150 °F)	100 °C (212 °F)	100 °C (212 °F)	232 °C (450 °F)	232 °C (450 °F)	232 °C (450 °F)
<b>Inlet sizes</b>	100 ... 250 mm (4 ... 10 inch) in universal ANSI/DIN flanges	305 x 533 mm (12 x 21 inch) 305 x 635 mm (12 x 26 inch)	406 x 635 mm (16 x 25 inch) 508 x 940 mm (20 x 37 inch)	Sensing element dependent, see 'Sensing element' chart, page 6/4.	Sensing element dependent, see 'Sensing element' chart, page 6/4.	Sensing element dependent, see 'Sensing element' chart, page 6/4.
<b>Accuracy<sup>1)</sup></b>	± 1 % (33 ... 100 % of rate)	± 1 % (33 ... 100 % of rate)	± 1 % (33 ... 100 % of rate)	± 1 % (33 ... 100 % of rate)	± 1 % (33 ... 100 % of rate)	± 1 % (33 ... 100 % of rate)
<b>Repeatability</b>	± 0.2 %	± 0.2 %	± 0.2 %	± 0.2 %	± 0.2 %	± 0.2 %
<b>Options</b>	304 or 316 stainless steel, bead blast finish (1 ... 6 µin, 4 ... 240 µin) construction (meets FDA and USDA requirements for food processing)	304 or 316 stainless steel, bead blast finish (1 ... 6 µin, 4 ... 240 µin) construction (meets FDA and USDA requirements for food processing)	304 or 316 stainless steel, bead blast finish (1 ... 6 µin, 4 ... 240 µin) construction (meets FDA and USDA requirements for food processing)	<ul style="list-style-type: none"> <li>304 or 316 stainless steel, bead blast finish (1 ... 6 µin, 4 ... 240 µin) construction (meets FDA and USDA requirements for food processing)</li> <li>Food grade epoxy coating on sensing head</li> </ul>	<ul style="list-style-type: none"> <li>304 or 316 stainless steel, bead blast finish (1 ... 6 µin, 4 ... 240 µin) construction (meets FDA and USDA requirements for food processing)</li> <li>Food grade epoxy coating on sensing head</li> </ul>	<ul style="list-style-type: none"> <li>304 or 316 stainless steel, bead blast finish (1 ... 6 µin, 4 ... 240 µin) construction (meets FDA and USDA requirements for food processing)</li> <li>Food grade epoxy coating on sensing head</li> </ul>
<b>Sensing element</b>	One triple beam parallelogram style, stainless steel, strain gauge load cell	Two triple beam parallelogram style, stainless steel, strain gauge load cells	Two triple beam parallelogram style, stainless steel, strain gauge load cells	Deflection measurement using LVDT (linear variable differential transformer)	Deflection measurement using LVDT (linear variable differential transformer)	Deflection measurement using LVDT (linear variable differential transformer)
<b>Sensing plate</b>	<ul style="list-style-type: none"> <li>304 stainless steel</li> <li>Option: 316 stainless steel</li> </ul>	<ul style="list-style-type: none"> <li>304 stainless steel</li> <li>Option: 316 stainless steel</li> </ul>	<ul style="list-style-type: none"> <li>304 stainless steel</li> <li>Option: 316 stainless steel</li> </ul>	<ul style="list-style-type: none"> <li>304 stainless steel</li> <li>Option: 316 stainless steel</li> </ul>	<ul style="list-style-type: none"> <li>304 stainless steel</li> <li>Option: 316 stainless steel</li> </ul>	<ul style="list-style-type: none"> <li>304 stainless steel</li> <li>Option: 316 stainless steel</li> </ul>
<b>Liners</b>	<ul style="list-style-type: none"> <li>PTFE</li> <li>Polyurethane</li> </ul>	<ul style="list-style-type: none"> <li>Polyurethane</li> <li>Alumina ceramic</li> </ul>	<ul style="list-style-type: none"> <li>Polyurethane</li> <li>Alumina ceramic</li> </ul>	<ul style="list-style-type: none"> <li>Plasma A/R</li> <li>PTFE</li> <li>Polyurethane</li> <li>Alumina ceramic</li> </ul>	<ul style="list-style-type: none"> <li>Plasma A/R</li> <li>PTFE</li> <li>Polyurethane</li> <li>Alumina ceramic</li> </ul>	<ul style="list-style-type: none"> <li>Plasma A/R</li> <li>PTFE</li> <li>Polyurethane</li> <li>Alumina ceramic</li> </ul>
<b>Approvals</b>	CE, RCM, CSA, FM, ATEX, IEC Ex, EAC	CE, RCM, CSA, FM, ATEX, IEC Ex, EAC	CE, RCM, CSA, FM, ATEX, IEC Ex, EAC	CE, RCM, EAC	CE, RCM, EAC	CE, RCM, EAC

<sup>1)</sup> Accuracy subject to: on factory approved installations the flowmeter system's totalized weight will be within the specified accuracy when compared to a known weighed material test sample. The test rate must be within the specified range of the design capacity and held constant for the duration of the test. The minimum material test sample must be equivalent to a sample obtained at the test flow rate for at least ten minutes running time.

## Solid Flowmeters

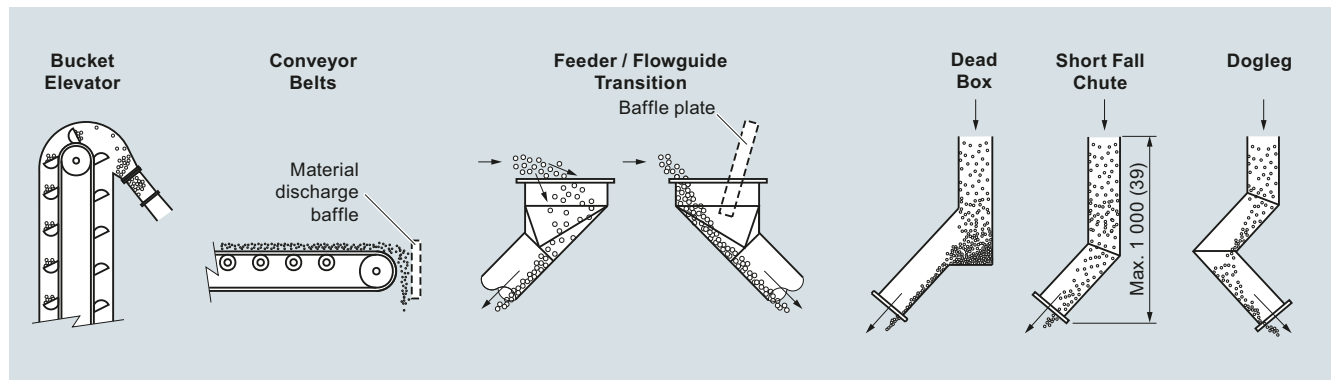
### Introduction

#### Sensing element

	SITRANS WF330	SITRANS WF340	SITRANS WF350
<b>Capacity range</b>			
- SITRANS WFS300	0.2 ... 40 t/h (0.2 ... 44 STPH)	0.2 ... 40 t/h (0.2 ... 44 STPH)	0.2 ... 40 t/h (0.2 ... 44 STPH)
- SITRANS WFS320	20 ... 300 t/h (22 ... 330 STPH)	20 ... 300 t/h (22 ... 330 STPH)	20 ... 300 t/h (22 ... 330 STPH)
<b>Particle size (max.)</b>			
- SITRANS WFS300	12 mm ( 0.5 inch)	12 mm (0.5 inch)	3 mm (0.13 inch)
- SITRANS WFS320	25 mm (1 inch)	25 mm (1 inch)	3 mm (0.13 inch)
<b>Inlet sizes</b>			
- SITRANS WFS300	50 ... 250 mm (2 ... 10 inch) (ASME or DIN flanges)	<ul style="list-style-type: none"> <li>• 76 x 152 mm (3 x 6 inch)</li> <li>• 102 x 254 mm (4 x 10 inch)</li> <li>• 127 x 305 mm (5 x 12 inch)</li> </ul>	<ul style="list-style-type: none"> <li>• 203 x 203 mm (8 x 8 inch)</li> <li>• 203 x 305 mm (8 x 12 inch)</li> </ul>
- SITRANS WFS320	150 ... 400 mm (6 ... 16 inch) (ASME or DIN flanges)	<ul style="list-style-type: none"> <li>• 127 x 406 mm (5 x 16 inch)</li> <li>• 152 x 508 mm (6 x 20 inch)</li> </ul>	<ul style="list-style-type: none"> <li>• 305 x 254 mm (12 x 10 inch)</li> <li>• 305 x 356 mm (12 x 14 inch)</li> <li>• 305 x 508 mm (12 x 20 inch)</li> </ul>

#### Common flowmeter infeed types

A solids flowmeter's performance will be as repeatable and consistent as the flow of material it is measuring. The following arrangements are typical of pre-feed chute configurations used to ensure consistent flow patterns. Arrangements will vary depending on the upstream equipment or chute work. Applications should be reviewed by a Siemens solids flowmeter specialist to achieve best results. During initial setup, use pre-weighing or post-weighing of material samples to calibrate the flowmeter and verify accuracy using the material sample weights.



Solids flowmeters, dimensions in mm (inch)

**Overview**

SITRANS WF100 flowmeter is a low to medium capacity flowmeter for various product sizes, densities, and fluidities in restricted spaces.

**Benefits**

- Flowrates from 3 to 200 t/h (4 to 220 STPH)
- Continuous monitoring of the material flow without interrupting the process
- Dust-tight construction: suitable for use in hazardous areas and in washdown applications that require frequent cleaning
- Minimal maintenance or recalibration after the initial installation and material tests

**Application**

WF100 is unaffected by corrosive, abrasive, or hot materials. Handling various product sizes, densities, and fluidities including fine powders such as sugar, the WF100 helps to improve final product, increase operating efficiency, and realize significant cost savings.

Dry bulk solids enter the flow guide producing a mechanical deflection as they strike the flowmeter sensing plate before continuing through the process un-hindered. The WF100 converts the deflection into an electrical signal that feeds into an accompanying integrator, which instantaneously displays the flow rate and totalizes the weight.

- Key applications: cement, wood chips, cereals, seeds, grains, soybean and rice hulls, unshelled peanuts, starch, sugar, potato flakes, grain tailings and screenings, and plastic pellets

# Solid Flowmeters

## LVDT flowmeters

### SITRANS WF100

#### Selection and ordering data

##### SITRANS WF100

Impact solids flowmeter for low to medium capacity applications. Low cost compact unit improves processing, increases efficiency and provides significant cost savings.

➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

##### Flowguide size (Universal flat-faced flange fits ASME/DIN flanges)

4 inch (100 mm)  
Available with fabrication options A ... E and sensing plate options 10 ... 15 only

6 inch (150 mm)  
Available with fabrication options F ... K and sensing plate options 20 ... 25 only

8 inch (200 mm)  
Available with fabrication options L ... Q and sensing plate options 30 ... 35 only

10 inch (250 mm)  
Available with fabrication options R ... V and sensing plate options 40 ... 45 only

##### Fabrication

Mild steel, painted 4 inch (100 mm) flowguide  
AISI 304 stainless steel 4 inch (100 mm) flowguide  
AISI 304 stainless steel with PTFE coated infeed 4 inch (100 mm) flowguide  
AISI 316 stainless steel 4 inch (100 mm) flowguide  
AISI 316 stainless steel with PTFE coated infeed 4 inch (100 mm) flowguide  
Mild steel, painted 6 inch (150 mm) flowguide  
AISI 304 stainless steel 6 inch (150 mm) flowguide  
AISI 304 stainless steel with PTFE coated infeed 6 inch (150 mm) flowguide  
AISI 316 stainless steel 6 inch (150 mm) flowguide  
AISI 316 stainless steel with PTFE coated infeed 6 inch (150 mm) flowguide  
Mild steel, painted 8 inch (200 mm) flowguide  
AISI 304 stainless steel 8 inch (200 mm) flowguide  
AISI 304 stainless steel with PTFE coated infeed 8 inch (200 mm) flowguide  
AISI 316 stainless steel 8 inch (200 mm) flowguide  
AISI 316 stainless steel with PTFE coated infeed 8 inch (200 mm) flowguide  
Mild steel, painted 10 inch (250 mm) flowguide  
AISI 304 stainless steel 10 inch (250 mm) flowguide  
AISI 304 stainless steel with PTFE coated infeed 10 inch (250 mm) flowguide  
AISI 316 stainless steel 10 inch (250 mm) flowguide  
AISI 316 stainless steel with PTFE coated infeed 10 inch (250 mm) flowguide

##### Load cell, stainless steel [17-4 PH (1.4568) construction with 304 (1.4301) stainless steel cover]

2 lb (0.9 kg)  
5 lb (2.3 kg)  
10 lb (4.5 kg)  
20 lb (9.1 kg)

Not specified (Only for quotation purposes, not a valid ordering option)

Article No.

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##### SITRANS WF100

Impact solids flowmeter for low to medium capacity applications. Low cost compact unit improves processing, increases efficiency and provides significant cost savings.

##### Sensing plate fabrication

4 inch (100 mm) AISI 304 stainless steel

4 inch (100 mm) AISI 304 stainless steel with PTFE coating

4 inch (100 mm) AISI 304 stainless steel with polyurethane coating

4 inch (100 mm) AISI 316 stainless steel

4 inch (100 mm) AISI 316 stainless steel with PTFE coating

4 inch (100 mm) AISI 316 stainless steel with polyurethane coating

6 inch (150 mm) AISI 304 stainless steel

6 inch (150 mm) AISI 304 stainless steel with PTFE coating

6 inch (150 mm) AISI 304 stainless steel with polyurethane coating

6 inch (150 mm) AISI 316 stainless steel

6 inch (150 mm) AISI 316 stainless steel with PTFE coating

6 inch (150 mm) AISI 316 stainless steel with polyurethane coating

8 inch (200 mm) AISI 304 stainless steel

8 inch (200 mm) AISI 304 stainless steel with PTFE coating

8 inch (200 mm) AISI 304 stainless steel with polyurethane coating

8 inch (200 mm) AISI 316 stainless steel

8 inch (200 mm) AISI 316 stainless steel with PTFE coating

8 inch (200 mm) AISI 316 stainless steel with polyurethane coating

10 inch (250 mm) AISI 304 stainless steel

10 inch (250 mm) AISI 304 stainless steel with PTFE coating

10 inch (250 mm) AISI 304 stainless steel with polyurethane coating

10 inch (250 mm) AISI 316 stainless steel

10 inch (250 mm) AISI 316 stainless steel with PTFE coating

10 inch (250 mm) AISI 316 stainless steel with polyurethane coating

##### Approvals

Standard: CE, RCM, EAC, KCC

CSA/FM Class II, Div. 1, Groups E, F, G and Class III, ATEX II 2D, Ex tD A21 IP65 T70 °C, CE, RCM, IECEx, Ex tD A21 IP65 T70 °C, EAC Ex

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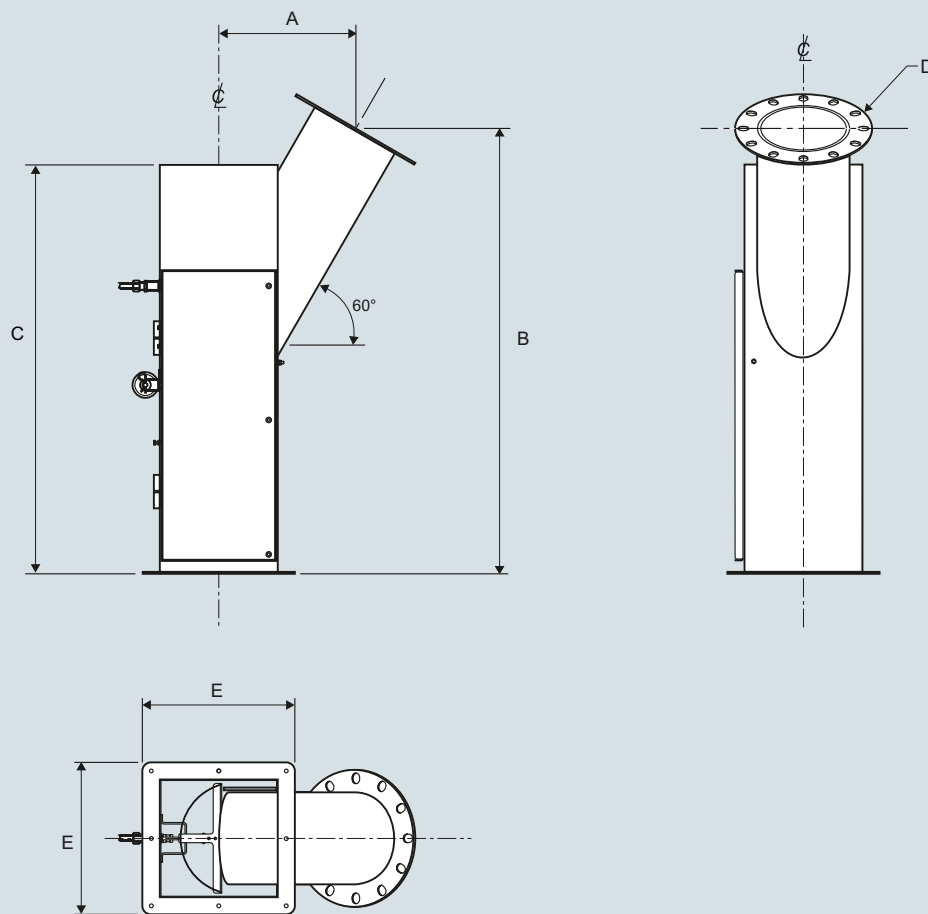
Selection and ordering data		Order Code	Article No.
<b>Further designs</b>			
Please add <b>"-Z"</b> to article no. and specify order code(s).			
Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max 27 characters), specify in plain text.		<b>Y15</b>	WF100 10 inch (250 mm) sensing plate 304 PTFE lined <b>7MH7723-1LA</b>
Application Eng. reference number (max. 15 characters), specify in plain text.		<b>Y31</b>	WF100 4 inch (100 mm) sensing plate 316 PTFE lined <b>7MH7723-1LB</b>
Manufacturer's test certificate: According to EN 10204-2.2		<b>C11</b>	WF100 6 inch (150 mm) sensing plate 316 PTFE lined <b>7MH7723-1LC</b>
Inspection certificate type 3.1 per EN 10204 Not available with fabrication options A, F, L, R		<b>C12</b>	WF100 8 inch (200 mm) sensing plate 316 PTFE lined <b>7MH7723-1LD</b>
<b>Instruction manuals</b>			
All literature is available to download for free, in a range of languages, at <a href="http://www.siemens.com/weighing/documentation">http://www.siemens.com/weighing/documentation</a>			WF100 10 inch (250 mm) sensing plate 316 PTFE lined <b>7MH7723-1LE</b>
<b>Calibration hanger weights</b>		Article No.	WF100 4 inch (100 mm) sensing plate 304 polyurethane lined <b>7MH7723-1LF</b>
20 g (0.04 lb)		<b>7MH7724-1AC</b>	WF100 6 inch (150 mm) sensing plate 304 polyurethane lined <b>7MH7723-1LG</b>
50 g (0.1 lb)		<b>7MH7724-1AD</b>	WF100 8 inch (200 mm) sensing plate 304 polyurethane lined <b>7MH7723-1LH</b>
100 g (0.2 lb)		<b>7MH7724-1AE</b>	WF100 10 inch (250 mm) sensing plate 304 polyurethane lined <b>7MH7723-1LJ</b>
200 g (0.4 lb)		<b>7MH7724-1AF</b>	WF100 4 inch (100 mm) sensing plate 316 polyurethane lined <b>7MH7723-1LK</b>
500 g (1.1 lb)		<b>7MH7724-1AG</b>	WF100 6 inch (150 mm) sensing plate 316 polyurethane lined <b>7MH7723-1LL</b>
1 000 g (2.2 lb)		<b>7MH7724-1AH</b>	WF100 8 inch (200 mm) sensing plate 316 polyurethane lined <b>7MH7723-1LM</b>
2 000 g (4.4 lb)		<b>7MH7724-1AJ</b>	WF100 10 inch (250 mm) sensing plate 316 polyurethane lined <b>7MH7723-1LN</b>
5 000 g (11 lb)		<b>7MH7724-1AK</b>	WF100 load cell spare 2 lb <b>PBD-23900176</b>
Note: calibration accessories should be ordered as a separate item on the order.			WF100 load cell spare 5 lb <b>PBD-23900177</b>
<b>Spare parts</b>			WF100 load cell spare 10 lb <b>PBD-23900244</b>
WF100 4 inch (100 mm) sensing plate 304 standard		<b>7MH7723-1KN</b>	WF100 load cell spare 20 lb <b>PBD-23900245</b>
WF100 6 inch (150 mm) sensing plate 304 standard		<b>7MH7723-1KP</b>	WF calibration pulley with hardware and cable spare <b>7MH7723-1LT</b>
WF100 8 inch (200 mm) sensing plate 304 standard		<b>7MH7723-1KQ</b>	
WF100 10 inch (250 mm) sensing plate 304 standard		<b>7MH7723-1KR</b>	
WF100 4 inch (100 mm) sensing plate 316 standard		<b>7MH7723-1KS</b>	
WF100 6 inch (150 mm) sensing plate 316 standard		<b>7MH7723-1KT</b>	
WF100 8 inch (200 mm) sensing plate 316 standard		<b>7MH7723-1KU</b>	
WF100 10 inch (250 mm) sensing plate 316 standard		<b>7MH7723-1KV</b>	
WF100 4 inch (100 mm) sensing plate 304 PTFE lined		<b>7MH7723-1KW</b>	
WF100 6 inch (150 mm) sensing plate 304 PTFE lined		<b>7MH7723-1KX</b>	
WF100 8 inch (200 mm) sensing plate 304 PTFE lined		<b>7MH7723-1KY</b>	

## Solid Flowmeters

### LVDT flowmeters

#### SITRANS WF100

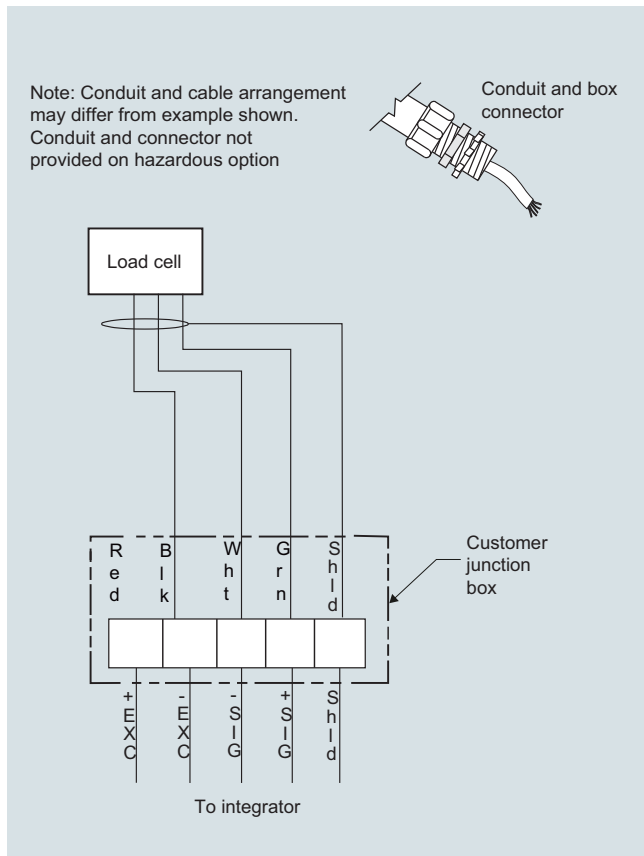
#### Dimensional drawings



	A	B	C	D (flange)	E	F (x 8)
4 inch (100 mm)	8 inch (203.2 mm)	23.5 inch (596.9 mm)	21.87 inch (555.5 mm)	Ø ASME 4 inch DIN 100 mm	11.25 inch (285.8 mm)	Ø 0.43 inch (11 mm)
6 inch (150 mm)	10 inch (254 mm)	33 inch (838.2 mm)	31.12 inch (790.4 mm)	Ø ASME 6 inch DIN 150 mm	13.35 inch (339.1 mm)	Ø 0.43 inch (11 mm)
8 inch (200 mm)	14 inch (355.6 mm)	46 inch (1 168.4 mm)	42.62 inch (1 082.5 mm)	Ø ASME 8 inch DIN 200 mm	16.5 inch (419.1 mm)	Ø 0.43 inch (11 mm)
10 inch (250 mm)	16 inch (406.4 mm)	52 inch (1 320.8 mm)	48.74 inch (1 238.1 mm)	Ø ASME 10 inch DIN 250 mm	19 inch (482.6 mm)	Ø 0.43 inch (11 mm)

SITRANS WF100, dimensions



**Circuit diagrams**


SITRANS WF100 connections

## Solid Flowmeters

### LVDT flowmeters

#### SITRANS WF200 series

##### Overview



SITRANS WF200 and WF250 flowmeters are medium to high capacity flowmeters for various product sizes, densities, and fluidities.

##### Application


Operating with a microprocessor based integrator package, the WF200 series flowmeters display flow rate, totalized flow, and rate alarms. Outputs are 0/4 to 20 mA proportional to rate and contact closure for remote totalization. Dry bulk solids enter the flowmeter before continuing through the process unhindered. The load cells convert the horizontal force of the deflection into an electrical signal. The integrator processes this into flowrate and integrated total weight. The sensing process is immune to the effect of product build-up as only the horizontal force is measured.

With load cells located externally to the process, the WF200 series flowmeters measure high capacities with a maximum rate of 900 t/h (990 STPH). For high capacity aerated gravity conveyor pre-feed, the WF250 has a maximum rate of 900 t/h (990 STPH).

- Key applications: aggregates, grain, cement, mineral processing

##### Benefits

- For specialized pre-feed applications
- Sensing element mounted outside process
- Flowrates from 200 to 900 t/h (220 to 990 STPH)
- Continuously monitoring of the material flow without interrupting the process
- Dust-tight construction: suitable for use in hazardous areas and in washdown applications that require frequent cleaning
- Minimal maintenance or recalibration after the initial installation and material tests

Selection and ordering data	Article No.	Order Code
<b>SITRANS WF200 series flowmeters</b> SITRANS WF200 and WF250 flowmeters are medium to high capacity flowmeters for various product sizes, densities, and fluidities. WF250 features aerated style designed for air slide gravity conveyors. <a href="#">Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</a>	<b>7MH7115-</b>  <b>- 0</b>	<b>Further designs</b> Please add <b>"-Z"</b> to article no. and specify order code(s). Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max 27 characters), specify in plain text. Application Eng. reference number (max.15 characters), specify in plain text. Manufacturer's test certificate: According to EN 10204-2.2 Inspection certificate type 3.1 per EN 10204 <sup>1)</sup>
<b>Model</b> <b>SITRANS WF200</b> 500 t/h maximum design capacity 900 t/h maximum design capacity <b>SITRANS WF250, aerated style</b> 500 t/h maximum design capacity 900 t/h maximum design capacity	1 2 3 4	<b>Y15</b>    <b>Y31</b>  <b>C11</b>  <b>C12</b>
<b>Construction</b> Painted mild steel 304 stainless steel for model option 1 304 stainless steel for model option 2 304 stainless steel for model option 3 304 stainless steel for model option 4 316 stainless steel for model option 1 316 stainless steel for model option 2 316 stainless steel for model option 3 316 stainless steel for model option 4	A B C D E F G H J	
<b>Sensing plate liner</b> None (standard 304 stainless steel, 316 for construction options F ... J) Polyurethane For model options 1 and 3 For model options 2 and 4 Alumina ceramic tiles For model options 1 and 3 For model options 2 and 4	A  B C  D E	
<b>Load cell</b> 50 lb 100 lb Not specified (for quotation purposes only, not a valid ordering option)	1 2 0	
<b>Approvals</b> CE, RCM, EAC, KCC CE, RCM, CSA/FM Class II, Div. 1, Groups E, F, G and Class III ATEX II 2D, Ex tD A21 IP65 T70 °C, CE, RCM, IECEx, Ex tD A21 IP65 T70 °C, EAC Ex	1 2	
		<b>Calibration hanger weights</b> 20 g (0.04 lb) 50 g (0.1 lb) 100 g (0.2 lb) 200 g (0.4 lb) 500 g (1.1 lb) 1 000 g (2.2 lb) 2 000 g (4.4 lb) 5 000 g (11 lb) Note: calibration accessories should be ordered as a separate item on the order.
		Article No. <b>7MH7724-1AC</b> <b>7MH7724-1AD</b> <b>7MH7724-1AE</b> <b>7MH7724-1AF</b> <b>7MH7724-1AG</b> <b>7MH7724-1AH</b> <b>7MH7724-1AJ</b> <b>7MH7724-1AK</b>

1) Not available with construction option A.

## Solid Flowmeters

### LVDT flowmeters

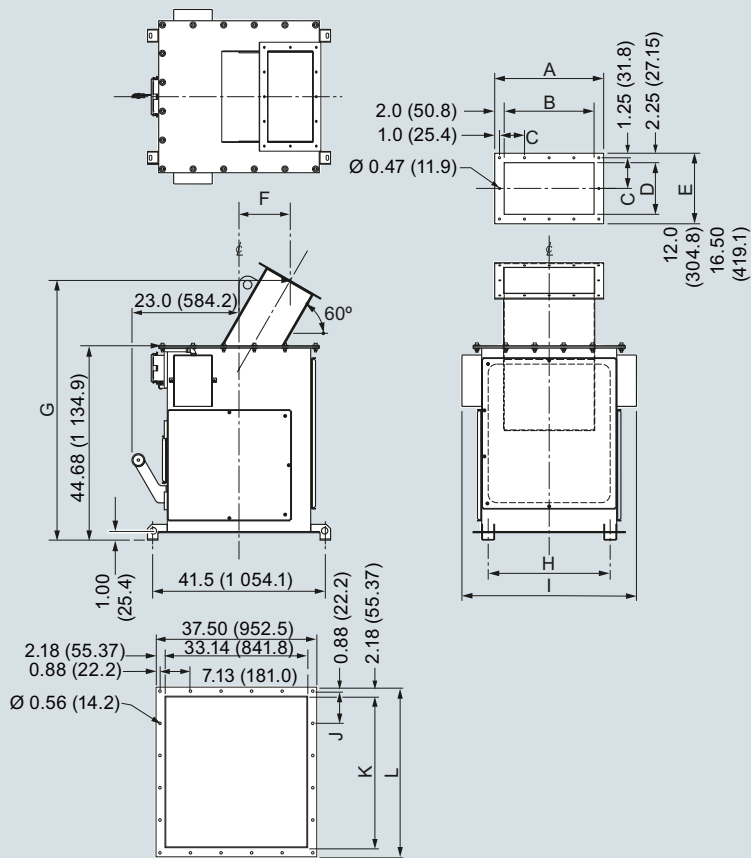
#### SITRANS WF200 series

##### Selection and ordering data

Article No.

##### *Spare parts*

Load cell, 50 lb, stainless steel	<b>PBD-23900246</b>
Load cell, 100 lb, stainless steel	<b>PBD-23900247</b>
WF calibration pulley with hardware and cable spare	<b>7MH7723-1LT</b>
WF200 series bearing with plate mount shaft, standard, spare	<b>7MH7723-1LU</b>
WF200 series bearing with plate mount shaft, stainless steel, spare	<b>7MH7723-1LV</b>
WF200 series sensing plate support cables, spare	<b>7MH7723-1LW</b>
WF250 series sensing plate support cables, spare	<b>7MH7723-1LX</b>
WF200 sensing plate 500 TPH 304, standard	<b>7MH7723-1LY</b>
WF200 sensing plate 900 TPH 304, standard	<b>7MH7723-1MA</b>
WF250 sensing plate 500 TPH 304, standard	<b>7MH7723-1MB</b>
WF250 sensing plate 900 TPH 304, standard	<b>7MH7723-1MC</b>
WF200 sensing plate 500 TPH 304, polyurethane lined	<b>7MH7723-1MD</b>
WF200 sensing plate 900 TPH 304, polyurethane lined	<b>7MH7723-1ME</b>
WF250 sensing plate 500 TPH 304, polyurethane lined	<b>7MH7723-1MF</b>
WF250 sensing plate 900 TPH 304, polyurethane lined	<b>7MH7723-1MG</b>
WF200 sensing plate 500 TPH 304, ceramic lined	<b>7MH7723-1MH</b>
WF200 sensing plate 900 TPH 304, ceramic lined	<b>7MH7723-1MJ</b>
WF250 sensing plate 500 TPH 304, ceramic lined	<b>7MH7723-1MK</b>
WF250 sensing plate 900 TPH 304, ceramic lined	<b>7MH7723-1ML</b>
WF200 sensing plate 500 TPH 316, standard	<b>7MH7723-1MM</b>
WF200 sensing plate 900 TPH 316, standard	<b>7MH7723-1MN</b>
WF250 sensing plate 500 TPH 316, standard	<b>7MH7723-1MP</b>
WF250 sensing plate 900 TPH 316, standard	<b>7MH7723-1MQ</b>
WF200 sensing plate 500 TPH 316, polyurethane lined	<b>7MH7723-1MR</b>
WF200 sensing plate 900 TPH 316, polyurethane lined	<b>7MH7723-1MS</b>
WF250 sensing plate 500 TPH 316, polyurethane lined	<b>7MH7723-1MT</b>
WF250 sensing plate 900 TPH 316, polyurethane lined	<b>7MH7723-1MU</b>
WF200 sensing plate 500 TPH 316, ceramic lined	<b>7MH7723-1MV</b>
WF200 sensing plate 900 TPH 316, ceramic lined	<b>7MH7723-1MW</b>
WF250 sensing plate 500 TPH 316, ceramic lined	<b>7MH7723-1MX</b>
WF250 sensing plate 900 TPH 316, ceramic lined	<b>7MH7723-1MY</b>

**Dimensional drawings**


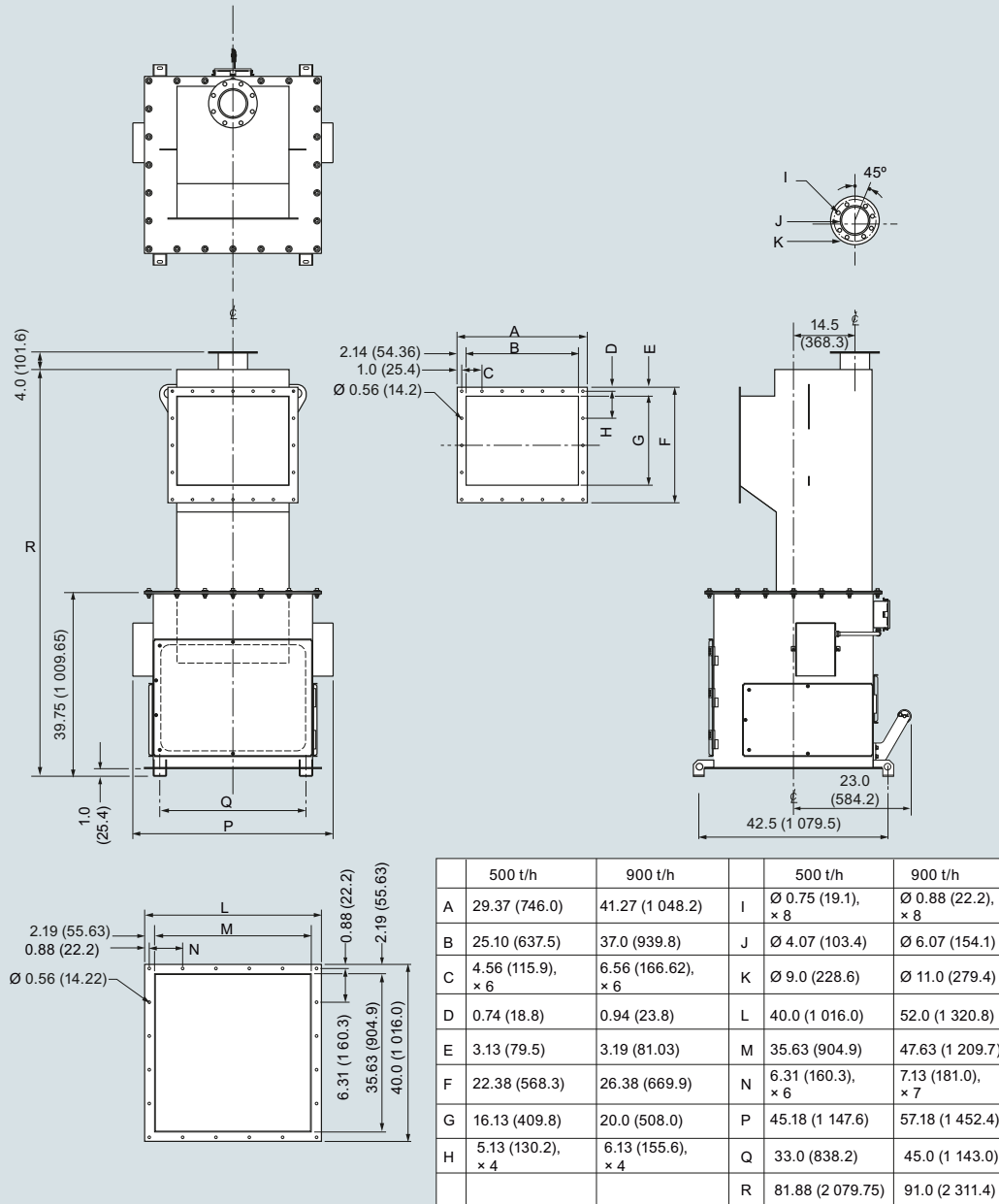
	500 t/h	900 t/h
A	25.0 (635.0)	30.0 (762.0)
B	21.0 (533.4)	26.0 (660.4)
C	5.75 (146.1), × 4	7.0 (177.8), × 4
D	12.0 (304.8)	12.0 (304.8)
E	16.5 (419.1)	16.5 (419.1)
F	11.97 (304.1)	14.86 (377.4)
G	59.0 (1498.6)	64.0 (1 625.6)
H	29.13 (739.8)	35.13 (892.2)
I	40.68 (1 033.3)	46.68 (1 185.7)
J	6.75 (171.5), × 5	6.63 (168.3), × 6
K	31.14 (791.0)	37.14 (943.4)
L	35.5 (901.7)	41.5 (1 054.1)

SITRANS WF200, dimensions in inch (mm)

# Solid Flowmeters

## LVDT flowmeters

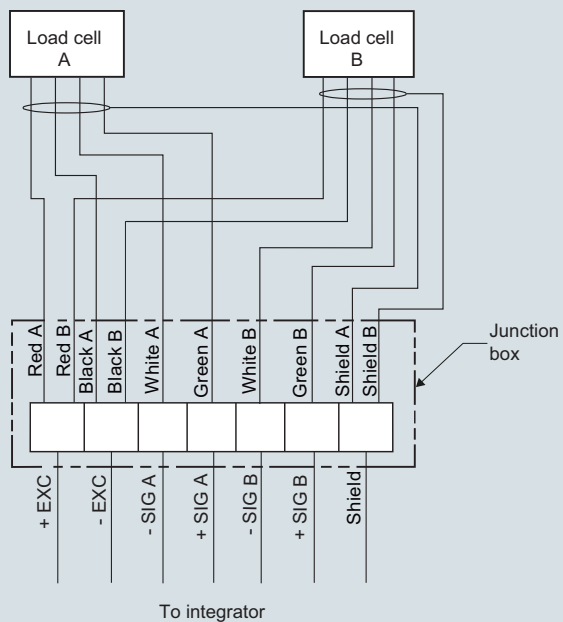
### SITRANS WF200 series



SITRANS WF250, dimensions in inch (mm)

**Circuit diagrams**

Note: conduit and cable arrangement may differ from example shown.  
 Conduit and connector not provided on hazardous option



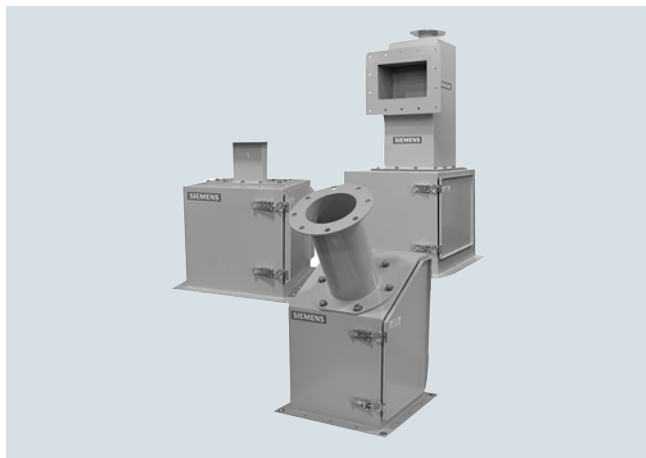
SITRANS WF200 series connections

## Solid Flowmeters

### LVDT flowmeters

#### SITRANS WF300 series

##### Overview



SITRANS WF300 series are low to medium capacity flowmeters for various product sizes, densities, and fluidities.

##### Benefits

- For specialized pre-feed applications
- Sensing element mounted outside process
- Flowrates from 0.2 to 300 t/h (0.2 to 330 STPH)
- Continuously monitoring of the material flow without interrupting the process
- Dust-tight construction: suitable for use in hazardous areas and in washdown applications that require frequent cleaning
- Minimal maintenance or recalibration after the initial installation and material tests

##### Application

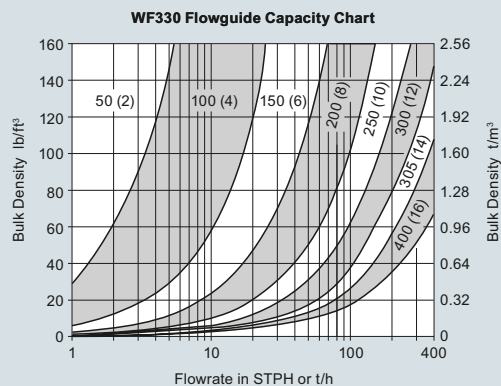
With weighing mechanics located externally, the WF300 series solids flowmeters are unaffected by corrosive, abrasive, or hot materials. Handling a wide range of product sizes, densities, and fluidities including fine powders such as cement, they operate at process temperatures to 230 °C (450 °F). The flowmeters help to improve final product, increase operating efficiency, and realize significant cost savings.

Operating with the appropriate SITRANS WFS sensing head and a micro-processor-based integrator package, the WF300 series flowmeters provide a display of the flow rate, totalized flow, and alarms. Outputs are 0/4 to 20 mA proportional to rate, and open collector output for remote totalization.

Dry bulk solids enter the flow guide producing a mechanical deflection as they strike the flowmeter sensing plate before continuing through the process unhindered. The LVDT in the sensing head converts the deflection of the horizontal force into an electrical signal. The integrator processes this signal into a display of flowrate and integrated total weight. The weighing process is immune to the effect of product build-up as only the horizontal force is measured.

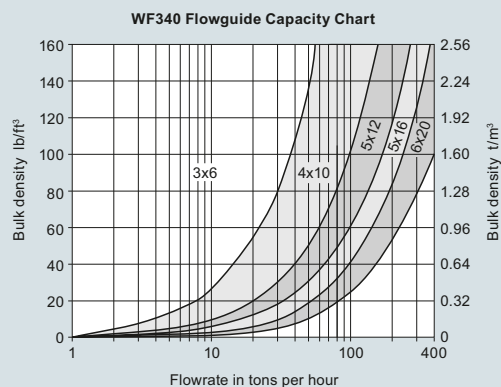
SITRANS WF330 flowmeters are totally enclosed, with external weighing mechanics, operating with corrosive, abrasive or hot materials. SITRANS WF350 series operates with aerated gravity conveyors, and includes integral vents and baffles for air separation. For applications with little available headroom, the SITRANS WF340 series flowmeters provide the answer.



**Characteristic curves**


Flowrate in STPH or t/h (use highest applicable flowrate for size selection)  
 Example: 25 t/h of material at 1.4 t/m³, the selection is a 150 mm flowguide.  
 Dimensions are provided as examples only.

SITRANS WF330 flowguide capacity chart



Should the material bulk density and flowrate be near a flowguide upper limit, choose the next larger flowguide.

SITRANS WF340 flowguide capacity chart

## Solid Flowmeters

### LVDT flowmeters

#### SITRANS WF300 series

##### Selection and ordering data

##### Article No.

##### Order Code

##### SITRANS WF330

Low to medium capacity solids flowmeters for various product sizes, densities, and fluidities, particularly fine powders. A sensing plate, sensing head and integrator are required to complete the system.

➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

##### Model

Base mount, 40 t/h (44 STPH) maximum design capacity

Side mount, 40 t/h (44 STPH) maximum design capacity

Base mount, 300 t/h (330 STPH) maximum design capacity

##### Flowguide size

No flowguide

2 inch ASME flange pattern<sup>1)</sup>

4 inch ASME flange pattern<sup>1)</sup>

6 inch ASME flange pattern<sup>2)</sup>

8 inch ASME flange pattern<sup>2)</sup>

10 inch ASME flange pattern<sup>2)</sup>

12 inch ASME flange pattern<sup>3)</sup>

14 inch ASME flange pattern<sup>3)</sup>

16 inch ASME flange pattern<sup>3)</sup>

DN 50 flange pattern<sup>1)</sup>

DN 100 flange pattern<sup>1)</sup>

DN 150 flange pattern<sup>2)</sup>

DN 200 flange pattern<sup>2)</sup>

DN 250 flange pattern<sup>2)</sup>

DN 300 flange pattern<sup>3)</sup>

DN 350 flange pattern<sup>3)</sup>

DN 400 flange pattern<sup>3)</sup>

##### Flowguide construction

No flowguide

Mild steel, C5-M rated polyester painted

Mild steel, epoxy painted with zinc primer<sup>1)</sup>

Mild steel, epoxy painted with zinc primer<sup>3)</sup>

304 (1.4301) stainless steel<sup>1)</sup>

304 (1.4301) stainless steel<sup>3)</sup>

316 (1.4401) stainless steel<sup>1)</sup>

316 (1.4401) stainless steel<sup>3)</sup>

##### Cabinet construction

Mild steel, C5-M rated polyester painted

Mild steel, epoxy painted with zinc primer<sup>1)</sup>

Mild steel, epoxy painted with zinc primer<sup>3)</sup>

304 (1.4301) stainless steel<sup>1)</sup>

304 (1.4301) stainless steel<sup>3)</sup>

316 (1.4401) stainless steel<sup>1)</sup>

316 (1.4401) stainless steel<sup>3)</sup>

7MH7102-

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7

##### Further designs

Please add **'-Z'** to Article No. and specify order code(s).

Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max. 27 characters), specify in plain text.

Application Eng. reference number (max. 15 characters), specify in plain text.

Manufacturer's test certificate: According to EN 10204-2.2

Inspection certificate type 3.1 per EN 10204<sup>4)</sup>  
Note: not available with cabinet construction option 1

##### Instruction manuals

All literature is available to download for free, in a range of languages, at

<http://www.siemens.com/weighing/documentation>

Y15

Y31

C11

C12

<sup>1)</sup> For versions 1 and 2 only

<sup>2)</sup> For versions 1, 2 or 3

<sup>3)</sup> For version 3 only

<sup>4)</sup> Not available with cabinet construction options 1, 2, 3

Selection and ordering data	Article No.		Article No.
<b><i>Spare parts</i></b>			
<u>40 TPH, mild steel flowguide</u>		<u>300 TPH, 316 (1.4401) stainless steel flowguide</u>	
2 inch ASME	<b>PBD:20377-111</b>	6 inch ASME	<b>PBD:20388-115</b>
4 inch ASME	<b>PBD:20377-211</b>	8 inch ASME	<b>PBD:20388-215</b>
6 inch ASME	<b>PBD:20377-311</b>	10 inch ASME	<b>PBD:20388-315</b>
8 inch ASME	<b>PBD:20377-411</b>	12 inch ASME	<b>PBD:20388-415</b>
10 inch ASME	<b>PBD:20377-511</b>	14 inch ASME	<b>PBD:20388-515</b>
		16 inch ASME	<b>PBD:20388-615</b>
<u>40 TPH, mild steel-epoxy flowguide</u>		<u>40 TPH, mild steel flowguide</u>	
2 inch ASME	<b>PBD:20377-112</b>	2 inch DIN	<b>PBD:20377-121</b>
4 inch ASME	<b>PBD:20377-212</b>	4 inch DIN	<b>PBD:20377-221</b>
6 inch ASME	<b>PBD:20377-312</b>	6 inch DIN	<b>PBD:20377-321</b>
8 inch ASME	<b>PBD:20377-412</b>	8 inch DIN	<b>PBD:20377-421</b>
10 inch ASME	<b>PBD:20377-512</b>	10 inch DIN	<b>PBD:20377-521</b>
<u>40 TPH, 304 (1.4301) stainless steel flowguide</u>		<u>40 TPH, mild steel-epoxy flowguide</u>	
2 inch ASME	<b>PBD:20377-114</b>	2 inch DIN	<b>PBD:20377-122</b>
4 inch ASME	<b>PBD:20377-214</b>	4 inch DIN	<b>PBD:20377-222</b>
6 inch ASME	<b>PBD:20377-314</b>	6 inch DIN	<b>PBD:20377-322</b>
8 inch ASME	<b>PBD:20377-414</b>	8 inch DIN	<b>PBD:20377-422</b>
10 inch ASME	<b>PBD:20377-514</b>	10 inch DIN	<b>PBD:20377-522</b>
<u>40 TPH, 316 (1.4401) stainless steel flowguide</u>		<u>40 TPH, 304 (1.4301) stainless steel flowguide</u>	
2 inch ASME	<b>PBD:20377-115</b>	2 inch DIN	<b>PBD:20377-124</b>
4 inch ASME	<b>PBD:20377-215</b>	4 inch DIN	<b>PBD:20377-224</b>
6 inch ASME	<b>PBD:20377-315</b>	6 inch DIN	<b>PBD:20377-324</b>
8 inch ASME	<b>PBD:20377-415</b>	8 inch DIN	<b>PBD:20377-424</b>
10 inch ASME	<b>PBD:20377-515</b>	10 inch DIN	<b>PBD:20377-524</b>
<u>300 TPH, mild steel flowguide</u>		<u>40 TPH, 316 (1.4401) stainless steel flowguide</u>	
6 inch ASME	<b>PBD:20388-111</b>	2 inch DIN	<b>PBD:20377-125</b>
8 inch ASME	<b>PBD:20388-211</b>	4 inch DIN	<b>PBD:20377-225</b>
10 inch ASME	<b>PBD:20388-311</b>	6 inch DIN	<b>PBD:20377-325</b>
12 inch ASME	<b>PBD:20388-411</b>	8 inch DIN	<b>PBD:20377-425</b>
14 inch ASME	<b>PBD:20388-511</b>	10 inch DIN	<b>PBD:20377-525</b>
16 inch ASME	<b>PBD:20388-611</b>		
<u>300 TPH, mild steel-epoxy flowguide</u>		<u>300 TPH, mild steel flowguide</u>	
6 inch ASME	<b>PBD:20388-112</b>	6 inch DIN	<b>PBD:20388-121</b>
8 inch ASME	<b>PBD:20388-212</b>	8 inch DIN	<b>PBD:20388-221</b>
10 inch ASME	<b>PBD:20388-312</b>	10 inch DIN	<b>PBD:20388-321</b>
12 inch ASME	<b>PBD:20388-412</b>	12 inch DIN	<b>PBD:20388-421</b>
14 inch ASME	<b>PBD:20388-512</b>	14 inch DIN	<b>PBD:20388-521</b>
16 inch ASME	<b>PBD:20388-612</b>	16 inch DIN	<b>PBD:20388-621</b>
<u>300 TPH, 304 (1.4301) stainless steel flowguide</u>		<u>300 TPH, mild steel-epoxy flowguide</u>	
6 inch ASME	<b>PBD:20388-114</b>	6 inch DIN	<b>PBD:20388-122</b>
8 inch ASME	<b>PBD:20388-214</b>	8 inch DIN	<b>PBD:20388-222</b>
10 inch ASME	<b>PBD:20388-314</b>	10 inch DIN	<b>PBD:20388-322</b>
12 inch ASME	<b>PBD:20388-414</b>	12 inch DIN	<b>PBD:20388-422</b>
14 inch ASME	<b>PBD:20388-514</b>	14 inch DIN	<b>PBD:20388-522</b>
16 inch ASME	<b>PBD:20388-614</b>	16 inch DIN	<b>PBD:20388-622</b>

## Solid Flowmeters

### LVDT flowmeters

#### SITRANS WF300 series

##### Selection and ordering data

Article No.

##### 300 TPH, 304 (1.4301) stainless steel flowguide


6 inch DIN	<b>PBD:20388-124</b>
8 inch DIN	<b>PBD:20388-224</b>
10 inch DIN	<b>PBD:20388-324</b>
12 inch DIN	<b>PBD:20388-424</b>
14 inch DIN	<b>PBD:20388-524</b>
16 inch DIN	<b>PBD:20388-624</b>

##### 300 TPH, 316 (1.4401) stainless steel flowguide

6 inch DIN	<b>PBD:20388-125</b>
8 inch DIN	<b>PBD:20388-225</b>
10 inch DIN	<b>PBD:20388-325</b>
12 inch DIN	<b>PBD:20388-425</b>
14 inch DIN	<b>PBD:20388-525</b>
16 inch DIN	<b>PBD:20388-625</b>

##### **Gasketing**

40 TPH, gasket	<b>PBD:22600493</b>
300 TPH, gasket	<b>PBD:22600494</b>

Selection and ordering data	Article No.	Order Code
<b>SITRANS WF340</b> Compact vertical flow, low to medium-capacity solid flowmeters for various product sizes, densities, and fluidities, particularly fine powders. A sensing plate, sensing head and integrator are required to complete the system. <a href="#">Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</a>	<b>7MH7104-</b>  <b>0</b>	<b>Further designs</b> Please add <b>'-Z'</b> to article no. and specify order code(s). Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max 27 characters), specify in plain text. <b>Y15</b> Application Eng. reference number (max.15 characters), specify in plain text. <b>Y31</b> Manufacturer's test certificate: According to EN 10204-2.2 <b>C11</b> Inspection certificate type 3.1 per EN 10204 <sup>3)</sup> <b>C12</b>
<b>Version</b> Base mount, 40 t/h (44 STPH) max. design capacity <b>1</b> Side mount, 40 t/h (44 STPH) max. design capacity <b>2</b> Base mount, 300 t/h (330 STPH) max. design capacity <b>3</b>		
<b>Flowguide size</b> No flowguide (5 x 16 inch model) <b>A</b> 3 x 6 inch (76 x 152 mm) <sup>1)</sup> <b>B</b> 4 x 10 inch (102 x 254 mm) <sup>1)</sup> <b>C</b> 5 x 12 inch (127 x 305 mm) <sup>1)</sup> <b>D</b> 5 x 16 inch (127 x 406 mm) <sup>2)</sup> <b>E</b> 6 x 20 inch (152 x 508 mm) <sup>2)</sup> <b>F</b> No flowguide (WF340-300 6 x 20 inch model) <b>G</b>		
<b>Flowguide construction</b> No flowguide <b>A</b> Mild steel, C5-M rated polyester painted <b>B</b> 304 (1.4301) stainless steel <sup>1)</sup> <b>C</b> 304 (1.4301) stainless steel <sup>2)</sup> <b>D</b> 316 (1.4401) stainless steel <sup>1)</sup> <b>E</b> 316 (1.4401) stainless steel <sup>2)</sup> <b>F</b> Mild steel, C5-M rated polyester painted with PTFE liner <b>G</b> Mild steel, C5-M rated polyester painted with abrasion resistant liner <b>H</b> 304 (1.4301) stainless steel, with PTFE liner <sup>1)</sup> <b>J</b> 304 (1.4301) stainless steel, with PTFE liner <sup>2)</sup> <b>K</b> Mild steel, epoxy paint with zinc primer <sup>1)</sup> <b>L</b> Mild steel, epoxy paint with zinc primer <sup>2)</sup> <b>M</b> Other flowguide materials available upon request		
<b>Cabinet construction</b> Mild steel, painted <b>1</b> 304 (1.4301) stainless steel <sup>1)</sup> <b>2</b> 304 (1.4301) stainless steel <sup>2)</sup> <b>3</b> 316 (1.4401) stainless steel <sup>1)</sup> <b>4</b> 316 (1.4401) stainless steel <sup>2)</sup> <b>5</b> Mild steel, epoxy paint with zinc primer <sup>1)</sup> <b>6</b> Mild steel, epoxy paint with zinc primer <sup>2)</sup> <b>7</b>		

<sup>1)</sup> For versions 1 and 2 only<sup>2)</sup> For version 3 only<sup>3)</sup> Not available with cabinet construction option 1

## Solid Flowmeters

### LVDT flowmeters

#### SITRANS WF300 series

##### Selection and ordering data

###### Spare parts

###### 40 TPH, mild steel flowguide

3 x 6 inch

**PBD:20401-100**

4 x 10 inch

**PBD:20395-100**

5 x 12 inch

**PBD:20405-100**

###### 40 TPH, mild steel-epoxy flowguide

3 x 6 inch

**PBD:20401-200**

4 x 10 inch

**PBD:20395-200**

5 x 12 inch

**PBD:20405-200**

###### 40 TPH, 304 (1.4301) stainless steel flowguide

3 x 6 inch

**PBD:20401-300**

4 x 10 inch

**PBD:20395-300**

5 x 12 inch

**PBD:20405-300**

###### 40 TPH, 316 (1.4401) stainless steel flowguide

3 x 6 inch

**PBD:20401-400**

4 x 10 inch

**PBD:20395-400**

5 x 12 inch

**PBD:20405-400**

###### 40 TPH, mild steel-PTFE flowguide

3 x 6 inch

**PBD:20401-500**

4 x 10 inch

**PBD:20395-500**

5 x 12 inch

**PBD:20405-500**

###### 40 TPH, 304 (1.4301) stainless steel-PTFE flowguide

3 x 6 inch

**PBD:20401-600**

4 x 10 inch

**PBD:20395-600**

5 x 12 inch

**PBD:20405-600**

###### 40 TPH, mild steel-AR flowguide

3 x 6 inch

**PBD:20401-700**

4 x 10 inch

**PBD:20395-700**

5 x 12 inch

**PBD:20405-700**

###### 300 TPH, mild steel flowguide

5 x 16 inch

**PBD:20455-10**

6 x 20 inch

**PBD:20458-10**

###### 300 TPH, mild steel-epoxy flowguide

5 x 16 inch

**PBD:20455-20**

6 x 20 inch

**PBD:20458-20**

##### Article No.

##### Article No.

###### 300 TPH, 304 (1.4301) stainless steel flowguide

5 x 16 inch

**PBD:20455-30**

6 x 20 inch

**PBD:20458-30**

###### 300 TPH, 304 (1.4301) stainless steel-PTFE flowguide

5 x 16 inch

**PBD:20455-40**

6 x 20 inch

**PBD:20458-40**

###### 300 TPH, 316 (1.4401) stainless steel flowguide

5 x 16 inch

**PBD:20455-50**

6 x 20 inch

**PBD:20458-50**

###### 300 TPH, mild steel-PTFE flowguide

5 x 16 inch

**PBD:20455-60**

6 x 20 inch

**PBD:20458-60**

###### 300 TPH, mild steel-AR flowguide

5 x 16 inch

**PBD:20455-70**

6 x 20 inch

**PBD:20458-70**

###### **Gasketing**

40 TPH, gasket

**PBD:22600495**

###### 300 TPH, gasket

• 5 x 16 inch

**PBD:45000969**

• 6 x 20 inch

**PBD:45000970**

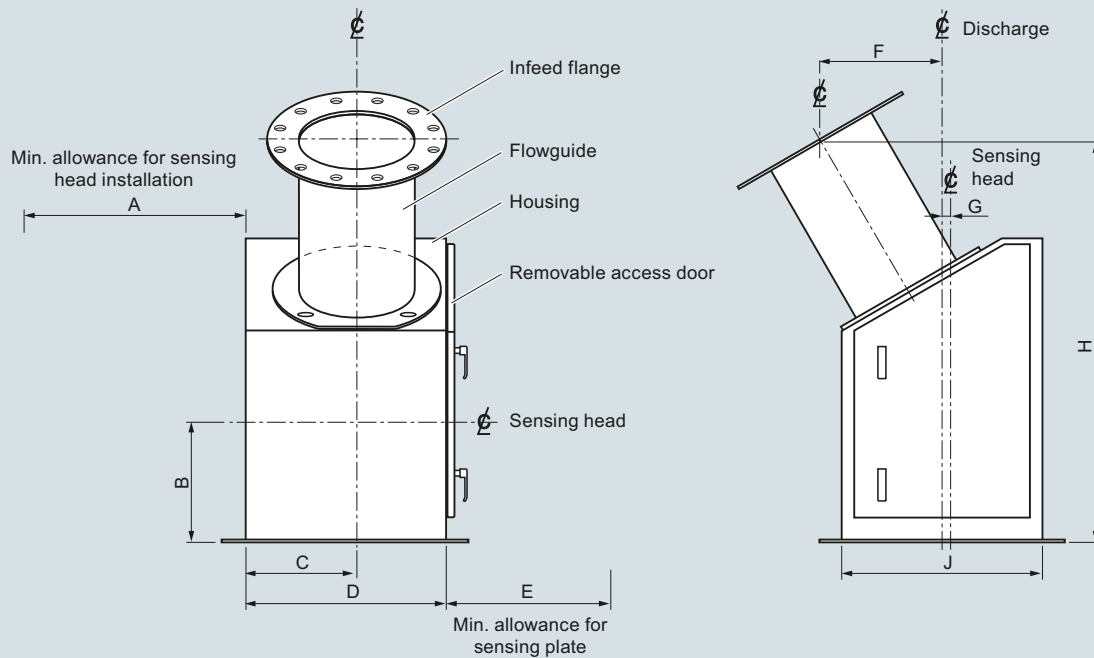
Selection and ordering data	Article No.	Order Code
<b>SITRANS WF350</b> Low to medium capacity flowmeters for powders conveyed by aerated gravity conveyors. A sensing plate, sensing head and integrator are required to complete the system. <a href="#">Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</a>	<b>7MH7106-</b> 	<b>Further designs</b> Please add <b>'-Z'</b> to article no. and specify order code(s). Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max. 27 characters), specify in plain text. Application Eng. reference number (max. 15 characters), specify in plain text. Manufacturer's test certificate: According to EN 10204-2.2 Inspection certificate type 3.1 per EN 10204 Not available with cabinet construction option 1
<b>Version</b> 40 t/h (44 STPH) maximum design capacity 300 t/h (330 STPH) maximum design capacity	1 2	Y15 Y31 C11 C12
<b>Flowguide size</b> 8 inch (203 mm), 40 t/h (0.2 to 44 STPH) version 10 inch (254 mm), 300 t/h 12 inch (305 mm), 40 t/h (0.2 to 44 STPH) version 14 inch (356 mm), 300 t/h 20 inch (508 mm), 300 t/h	B C D E F	<b>Instruction manuals</b> All literature is available to download for free, in a range of languages, at <a href="http://www.siemens.com/weighing/documentation">http://www.siemens.com/weighing/documentation</a>
<b>Flowguide construction</b> Mild steel, C5-M rated polyester painted 304 (1.4301) stainless steel 316 (1.4401) stainless steel	B D E	<b>Spare parts</b> <b>40 TPH, mild steel flowguide</b> 8 inch 12 inch <b>40 TPH, 304 (1.4301) stainless steel flowguide</b> 8 inch 12 inch <b>40 TPH, 316 (1.4401) stainless steel flowguide</b> 8 inch 12 inch <b>300 TPH, mild steel flowguide</b> 10 inch 14 inch 20 inch <b>300 TPH, 304 (1.4301) stainless steel flowguide</b> 10 inch 14 inch 20 inch <b>40 TPH, 316 (1.4401) stainless steel flowguide</b> 10 inch 14 inch 20 inch
<b>Cabinet construction</b> Mild steel, C5-M rated polyester painted 304 (1.4301) stainless steel 316 (1.4401) stainless steel	1 3 4	Article No. <b>PBD:22520-1A0</b> <b>PBD:22520-2A0</b> <b>PBD:22520-1B0</b> <b>PBD:22520-2B0</b> <b>PBD:22520-1C0</b> <b>PBD:22520-2C0</b>
<b>Venting flange</b> ASME flange pattern DIN flange pattern	1 2	<b>PBD:22520-1C0</b> <b>PBD:22520-2C0</b> <b>PBD:22519-1A0</b> <b>PBD:22519-2A0</b> <b>PBD:22519-3A0</b> <b>PBD:22519-1B0</b> <b>PBD:22519-2B0</b> <b>PBD:22519-3B0</b> <b>PBD:22519-1C0</b> <b>PBD:22519-2C0</b> <b>PBD:22519-3C0</b>
		<b>Gasketing</b> 40 TPH, gasket 300 TPH, gasket
		<b>PBD:45000972</b> <b>PBD:45005013</b>

## Solid Flowmeters

### LVDT flowmeters

#### SITRANS WF300 series

#### Dimensional drawings



Model	A	B	C	D	E	F	G	H	J
40 t/h (44 STPH)	686 (27)	356 (14)	254 (10)	457 (18)	610 (24)	279 (11)	25 (1)	914 (36)	457 (18)
300 t/h (330 STPH)	1 042 (41)	457 (18)	305 (12)	610 (24)	610 (24)	330 (13)	38 (1.5)	1 270 (50)	610 (24)

#### 40 t/h version inlet sizes

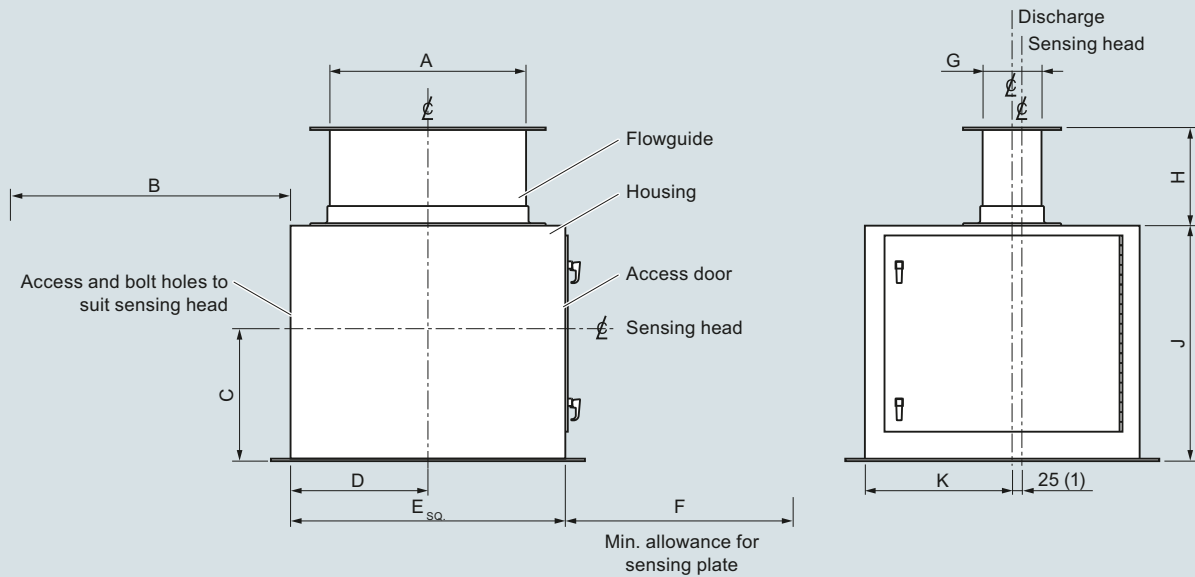
51 (2)	102 (4)	152 (6)	203 (8)	254 (10)
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#### 300 t/h version inlet sizes

152 (6)	203 (8)	254 (10)	305 (12)	356 (14)	406 (16)
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SITRANS WF330, dimensions in mm (inch)





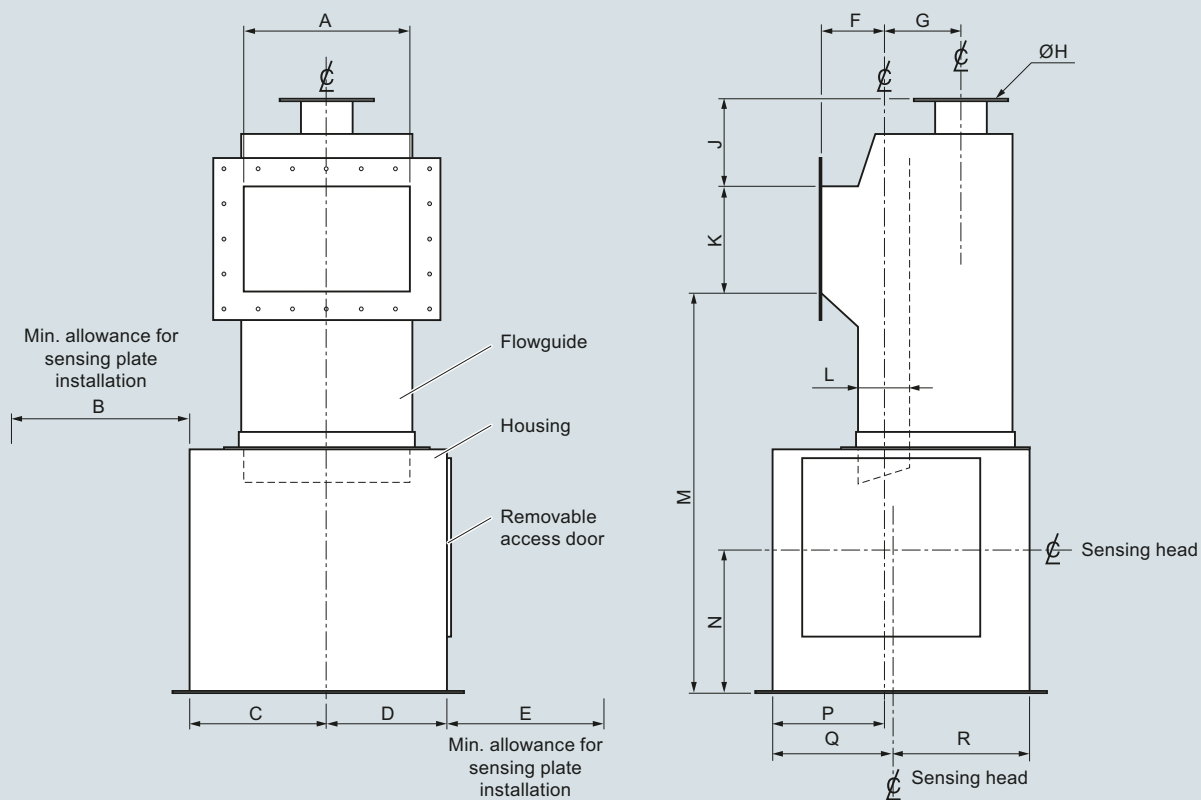
Size	A	B	C	D	E	F	G	H	J	K
40 t/h (44 STPH)	152 (6)	686 (27)	304 (12)	254 (10)	508 (20)	457 (18)	76 (3)	203 (8)	508 (20)	254 (10)
40 t/h (44 STPH)	254 (10)	686 (27)	304 (12)	254 (10)	508 (20)	457 (18)	102 (4)	203 (8)	508 (20)	254 (10)
40 t/h (44 STPH)	305 (12)	686 (27)	304 (12)	254 (10)	508 (20)	457 (18)	127 (5)	203 (8)	508 (20)	254 (10)
300 t/h (330 STPH)	406 (16)	1 041 (41)	343 (13.5)	305 (12)	610 (24)	762 (30)	127 (5)	254 (10)	610 (24)	330 (13)
300 t/h (330 STPH)	508 (20)	1 041 (41)	343 (13.5)	356 (14)	711 (28)	762 (30)	152 (6)	254 (10)	610 (24)	381 (15)

SITRANS WF340, dimensions in mm (inch)

## Solid Flowmeters

### LVDT flowmeters

#### SITRANS WF300 series

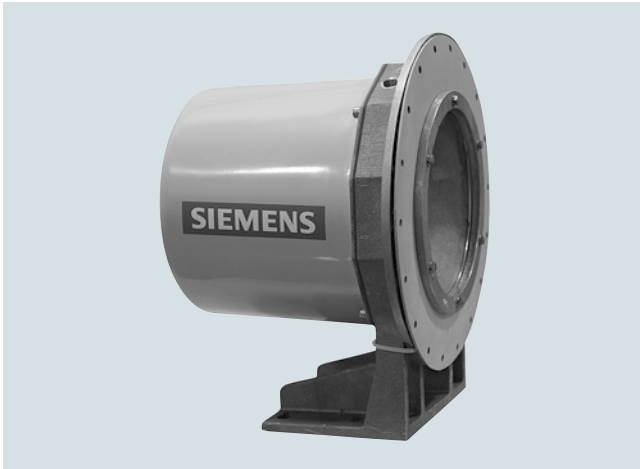


Size	A	B	C	D	E	F	G	H
40 t/h (44 STPH)	203 (8)	686 (27)	305 (12)	254 (10)	711 (28)	127 (5)	203 (8)	102 (4)
40 t/h (44 STPH)	305 (12)	686 (27)	305 (12)	254 (10)	711 (28)	127 (5)	203 (8)	102 (4)
300 t/h (330 STPH)	254 (10)	1 041 (41)	406 (16)	356 (14)	889 (35)	191 (7.5)	229 (9)	152 (6)
300 t/h (330 STPH)	356 (14)	1 041 (41)	406 (16)	356 (14)	889 (35)	191 (7.5)	229 (9)	152 (6)
300 t/h (330 STPH)	508 (20)	1 041 (41)	406 (16)	356 (14)	889 (35)	191 (7.5)	229 (9)	152 (6)

Size	J	K	L	M	N	P	Q	R
40 t/h (44 STPH)	229 (9)	203 (8)	76 (3)	914 (36)	305 (12)	229 (9)	229 (9)	330 (13)
40 t/h (44 STPH)	229 (9)	203 (8)	102 (4)	914 (36)	305 (12)	229 (9)	229 (9)	330 (13)
300 t/h (330 STPH)	254 (10)	305 (12)	127 (5)	1 168 (46)	419 (16.5)	330 (13)	356 (14)	406 (16)
300 t/h (330 STPH)	254 (10)	305 (12)	152 (6)	1 168 (46)	419 (16.5)	330 (13)	356 (14)	406 (16)
300 t/h (330 STPH)	254 (10)	305 (12)	178 (7)	1 168 (46)	419 (16.5)	330 (13)	356 (14)	406 (16)

SITRANS WF350, dimensions in mm (inch)

## Overview



SITRANS WFS300 and WFS320 sensing heads are out-of-the process sensing elements for SITRANS WFS300 series solids flowmeters.

## Benefits

- Easy installation with modular assembly
- $\pm 1\%$  accuracy (or better) with high repeatability
- Totally enclosed, dust-tight, flow metering of bulk solids
- Sensing mechanism is outside the process, protected from contamination
- No zero drift, due to unique sensing mechanism
- Low maintenance; only the sensing plate is in the process
- No restriction of product flow

## Application

SITRANS WFS300 and WFS320 sensing heads are used in applications such as product rationing, batch load-out, and process feed rate control, the WFS series of sensing heads has been field-proven in thousands of applications with some units providing over a quarter century of reliable performance. The WFS sensing heads use only the horizontal force created by impact of product upon the sensing plate and then apply the horizontal deflection to a highly reliable linear variable differential transformer (LVDT).

Friction-less pivots exclude the vertical force from the sensing process and the LVDT travel range is controlled by a coil spring selected for the specified full-scale flow rate. A viscous fluid damper provides mechanical damping in the event of pulsating flows.

The LVDT converts the horizontal movement, proportional to the impact forces into an electrical signal, which is converted by the integrator to time-based flow rate indication and totaling. This method of sensing material flow has been proven best in thousands of applications all over the world.

## Solid Flowmeters


### Sensing heads

#### SITRANS WFS300 series sensing heads

##### Technical specifications

Sensing heads	WFS300	WFS320
<b>Mode of operation</b>		
Measuring principle	Deflection measurement using LVDT (linear variable differential transformer)	
Typical application	For use in all WF300 series flowmeters	
<b>Flow input</b>		
Maximum particle size	13 mm (0.5 inch)	25 mm (1 inch)
Minimum flow rate	0 ... 0.2 t/h (0 ... 0.2 STPH)	0 ... 20 t/h (0 ... 22 STPH)
Maximum flow rate	0 ... 40 t/h (0 ... 44 STPH)	0 ... 300 t/h (0 ... 330 STPH)
<b>Performance</b>		
Accuracy <sup>1)</sup>	± 1 % or better of full scale, higher accuracy with linearizing features offered by integrators	
Repeatability	± 0.2 %	
Specified range	33 ... 100 %	
<b>Medium conditions</b>		
Ambient temperature		
• Without internally mounted LVDT card	-40 ... +60 °C (-40 ... +140 °F)	-40 ... +60 °C (-40 ... +140 °F)
• With optional internally mounted LVDT card	-40 ... +50 °C (-40 ... +122 °F)	-40 ... +50 °C (-40 ... +122 °F)
Maximum product temperature	232 °C (450 °F)	232 °C (450 °F)
<b>Design</b>	IP64 Aluminum body, fiberglass cover, 304 (1.4306) stainless steel sensing plate	
<b>Options</b>	<ul style="list-style-type: none"> <li>Epoxy paint coating of external aluminum casting surfaces</li> <li>Internally mounted LVDT conditioner card for use with SF500 integrator</li> <li>Externally mounted LVDT conditioner card in NEMA 4 (IP65) enclosure for use with Milltronics SF500 or SIWAREX FTC integrator when sensing head is mounted in hazardous areas or with high ambient temperatures</li> </ul>	
<b>Approvals</b>	CE, RCM, CSA, FM, EAC, KCC, ATEX, IEC Ex, EAC Ex	CE, RCM, CSA, FM, EAC, KCC, ATEX, IEC Ex, EAC Ex

<sup>1)</sup> Accuracy subject to: On factory approved installations the flowmeter system's totalized weight will be within the specified accuracy when compared to a known weighed material test sample. The test rate must be within the specified range of the design capacity and held constant for the duration of the test. The minimum material test sample must be equivalent to a sample obtained at the test flow rate for at least ten minutes running time.

Selection and ordering data	Article No.	Order Code
<b>SITRANS WFS300 sensing head</b> Out-of-the-process sensing element for 40 t/h (44 STPH) solids flowmeters. A flowguide, sensing plate and integrator are required to complete the system. Order flowguide, sensing plate and integrator separately. <a href="#">Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</a>	<b>7MH7110-</b> 	<b>Further designs</b> Please add <b>'-Z'</b> to article no. and specify order code(s). Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max. 27 characters), specify in plain text. Application Eng. reference number (max. 15 characters), specify in plain text. Manufacturer's test certificate: According to EN 10204-2.2
<b>Mounting</b> Base Side Base, explosion proof, CSA/FM Class I, Div. 1, Groups C and D; Class II, Div. 1, Groups E, F and G, ATEX II 2D - Ex tb IIIC T70 °C Db IP64, ATEX II 3D, Ex tc IIIB T70 °C Dc IP5X, IECEX FMG 13.0016X, Ex nA IIC T6 Gc, Ex tb IIIC T70 °C Db IP64, EAC Ex, RCM, EAC, KCC Side, explosion proof, CSA/FM Class I, Div. 1 Groups C and D; Class II, Div. 1, Groups E, F, and G, ATEX II 2D - Ex tb IIIC T70 °C Db IP64, ATEX II 3D, Ex tc IIIB T70 °C Dc IP5X, IECEX FMG 13.0016X, Ex nA IIC T6 Gc, Ex tb IIIC T70 °C Db IP64, EAC Ex, RCM, EAC, KCC Note: Externally mounted LVDT Conditioner in NEMA 4 enclosure required for use with SF500 or SIWAREX FTC and mounting options 3 and 4. See optional equipment.	<b>0</b> <b>1</b> <b>3</b> <b>4</b>	<b>Y15</b> <b>Y31</b> <b>C11</b>
<b>Range (Range spring size/leaf spring thickness/viscosity of damping fluid)</b> C2/A2/1 000 C3/A2/1 000 C4/A2/1 000 C5/A2/1 000 C6/A2/1 000 C7/A2/1 000 C8/A2/3 000 C9/A2/3 000 C10/A2/3 000 C11/A3/5 000 C12/A3/5 000 C13/A3/5 000 C14/A3/5 000 C0/A2/500 C0/A3/500 C10/A3/3 000	<b>A</b> <b>B</b> <b>C</b> <b>D</b> <b>E</b> <b>F</b> <b>G</b> <b>H</b> <b>J</b> <b>K</b> <b>L</b> <b>M</b> <b>N</b> <b>P</b> <b>Q</b> <b>R</b>	<b>Calibration hanger weights</b> 20 g (0.04 lb) 50 g (0.1 lb) 100 g (0.2 lb) 200 g (0.4 lb) 500 g (1.1 lb) 1 000 g (2.2 lb) 2 000 g (4.4 lb) 5 000 g (11 lb) Note: calibration accessories should be ordered as a separate item on the order.
<b>Gasketing</b> Silicone Silicone, light duty PTFE	<b>A</b> <b>B</b> <b>E</b>	Article No. <b>7MH7724-1AC</b> <b>7MH7724-1AD</b> <b>7MH7724-1AE</b> <b>7MH7724-1AF</b> <b>7MH7724-1AG</b> <b>7MH7724-1AH</b> <b>7MH7724-1AJ</b> <b>7MH7724-1AK</b>
<b>Coating (process side only)</b> None, standard aluminum Epoxy - white/aluminum, external castings only	<b>0</b> <b>1</b>	
<b>Sensing head mounted LVDT conditioner</b> None <sup>1)</sup> Included, required for use with SF500 or SIWAREX FTC integrator <sup>2)</sup>	<b>0</b> <b>1</b>	

<sup>1)</sup> For use with Compu Series integrators or when externally mounted LVDT conditioner required.

<sup>2)</sup> Applicable for mounting options 0 and 1 only.

## Solid Flowmeters

### Sensing heads


#### SITRANS WFS300 series sensing heads

##### Selection and ordering data

Article No.

##### *Spare parts*

LDVT conditioner in NEMA 4 enclosure (to interface SF500 or SIWAREX FTC and LDVT sensor)	<b>7MH7723-1AJ</b>
Silicone inner diaphragm	<b>7MH7723-1DN</b>
Silicone outer diaphragm	<b>7MH7723-1DP</b>
PTFE inner diaphragm	<b>7MH7723-1AL</b>
PTFE outer diaphragm	<b>7MH7723-1AM</b>
LDVT transformer and core, standard spare	<b>7MH7723-1DS</b>
Encapsulated LDVT replacement kit	<b>7MH7723-1DE</b>
Damping fluid, 1 000 CS, 1 lb bottle	<b>7MH7723-1EU</b>
Damping fluid, 3 000 CS, 1 lb bottle	<b>7MH7723-1EV</b>
Damping fluid, 5 000 CS, 1 lb bottle	<b>7MH7723-1EW</b>
Range spring assembly, C2	<b>7MH7723-1EX</b>
Range spring assembly, C3	<b>7MH7723-1EY</b>
Range spring assembly, C4	<b>7MH7723-1FA</b>
Range spring assembly, C5	<b>7MH7723-1FB</b>
Range spring assembly, C6	<b>7MH7723-1FC</b>
Range spring assembly, C7	<b>7MH7723-1FD</b>
Range spring assembly, C8	<b>7MH7723-1FE</b>
Range spring assembly, C9	<b>7MH7723-1FF</b>
Range spring assembly, C10	<b>7MH7723-1FG</b>
Range spring assembly, C11	<b>7MH7723-1FH</b>
Range spring assembly, C12	<b>7MH7723-1FJ</b>
Range spring assembly, C13	<b>7MH7723-1FK</b>
Range spring assembly, C14	<b>7MH7723-1FL</b>
Leaf spring, A2, kit	<b>7MH7723-1BN</b>
Leaf spring, A3, kit	<b>7MH7723-1BP</b>
WFS300 calibration wheel kit	<b>7MH7723-1KB</b>
Circuit card, LDVT, conditioner	<b>7MH7723-1ET</b>
WFS300 replacement O-ring kit	<b>7MH7723-1DC</b>
Side mount gasket replacement	<b>7MH7723-1FT</b>

Selection and ordering data	Article No.	Order Code
<b>SITRANS WFS320 sensing head</b> Out-of-the-process sensing element for use with 300 t/h (330 STPH) flowmeters. A flowguide, sensing plate and integrator are required to complete the system. Order flowguide, sensing plate and integrator separately. <a href="#">Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</a>	<b>7MH7112-</b> 	<b>Further designs</b> Please add <b>"-Z"</b> to article no. and specify order code(s). Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number/identification (max. 27 characters), specify in plain text. <b>Y15</b> Application Eng. reference number (max.15 characters), specify in plain text. <b>Y31</b> Manufacturer's test certificate: According to EN 10204-2.2 <b>C11</b>
<b>Classification</b> Non-hazardous <b>1</b> Hazardous, CSA/FM Class I, Div.1, Groups C and D; Class II, Div. 1, Groups E, F and G, ATEX II 2D - Ex tb IIIC T70 °C Db IP64, ATEX II 3D, Ex tc IIIB T70 °C Dc IP5X, IECEx FMG 13.0016X, Ex nA IIC T6 Gc, Ex tb IIIC T70 °C Db IP64, EAC Ex <b>2</b> Note: Externally mounted LVDT conditioner in NEMA 4 enclosure required for use with SF500 or SIWAREX FTC and classification option 2. See calibration hanger weights.		<b>Instruction manual</b> All literature is available to download for free, in a range of languages, at <a href="http://www.siemens.com/weighing/documentation">http://www.siemens.com/weighing/documentation</a>
<b>Range (range spring size/viscosity of damping fluid)</b> D1/1 000 Position 1 <b>A</b> D1/1 000 Position 2 <b>B</b> D1/1 000 Position 3 <b>C</b> D2/1 000 Position 1 <b>D</b> D2/1 000 Position 2 <b>E</b> D2/1 000 Position 3 <b>F</b> D3/3 000 Position 1 <b>G</b> D3/3 000 Position 2 <b>H</b> D3/3 000 Position 3 <b>J</b> D4/5 000 Position 1 <b>K</b> D4/5 000 Position 2 <b>L</b> D4/5 000 Position 3 <b>M</b> D5/5 000 Position 1 <b>N</b> D5/5 000 Position 2 <b>P</b> D5/5 000 Position 3 <b>Q</b>		<b>Calibration hanger weights</b> 20 g (0.04 lb) <b>7MH7724-1AC</b> 50 g (0.1 lb) <b>7MH7724-1AD</b> 100 g (0.2 lb) <b>7MH7724-1AE</b> 200 g (0.4 lb) <b>7MH7724-1AF</b> 500 g (1.1 lb) <b>7MH7724-1AG</b> 1 000 g (2.2 lb) <b>7MH7724-1AH</b> 2 000 g (4.4 lb) <b>7MH7724-1AJ</b> 5 000 g (11 lb) <b>7MH7724-1AK</b> Note: calibration accessories should be ordered as a separate item on the order.
<b>Gasketing</b> Silicone <b>A</b> PTFE <b>D</b> Other gasketing available upon request		<b>Spare parts</b> LVDT conditioner in NEMA 4 enclosure to interface SF500 and LVDT sensor <b>7MH7723-1AJ</b> Silicone inner diaphragm <b>7MH7723-1DQ</b> Silicone outer diaphragm <b>7MH7723-1DR</b> PTFE inner diaphragm <b>7MH7723-1BA</b> PTFE outer diaphragm <b>7MH7723-1BB</b> LVDT transformer and core, standard spare <b>7MH7723-1DS</b> Encapsulated LVDT replacement kit <b>7MH7723-1DE</b> Damping fluid, 1 000 CS, 1 lb bottle <b>7MH7723-1EU</b> Damping fluid, 3 000 CS, 1 lb bottle <b>7MH7723-1EV</b> Damping fluid, 5 000 CS, 1 lb bottle <b>7MH7723-1EW</b> Range spring assembly, D1 <b>7MH7723-1FM</b> Range spring assembly, D2 <b>7MH7723-1FN</b> Range spring assembly, D3 <b>7MH7723-1FP</b> Range spring assembly, D4 <b>7MH7723-1FQ</b> Range spring assembly, D5 <b>7MH7723-1GJ</b> Leaf spring kit <b>7MH7723-1BQ</b> Circuit card, LVDT, conditioner <b>7MH7723-1ET</b> WFS320 calibration wheel kit <b>7MH7723-1KA</b> WFS320 replacement o-ring kit <b>7MH7723-1DD</b> WFS320 Taper Pin, spare <b>7MH7723-1GD</b>
<b>Coating (process side only)</b> None, standard aluminum <b>0</b> Epoxy - white/aluminum, external castings only <b>1</b> Other coatings available upon request.		
<b>Sensing head mounted LVDT conditioner</b> None <sup>1)</sup> <b>0</b> Included, required for use with SF500 or SIWAREX FTC integrator <sup>2)</sup> <b>1</b>		

<sup>1)</sup> For use with Compu series integrators or when externally mounted LVDT conditioner required. See Note under Classification.

<sup>2)</sup> Available with classification option 1 only.

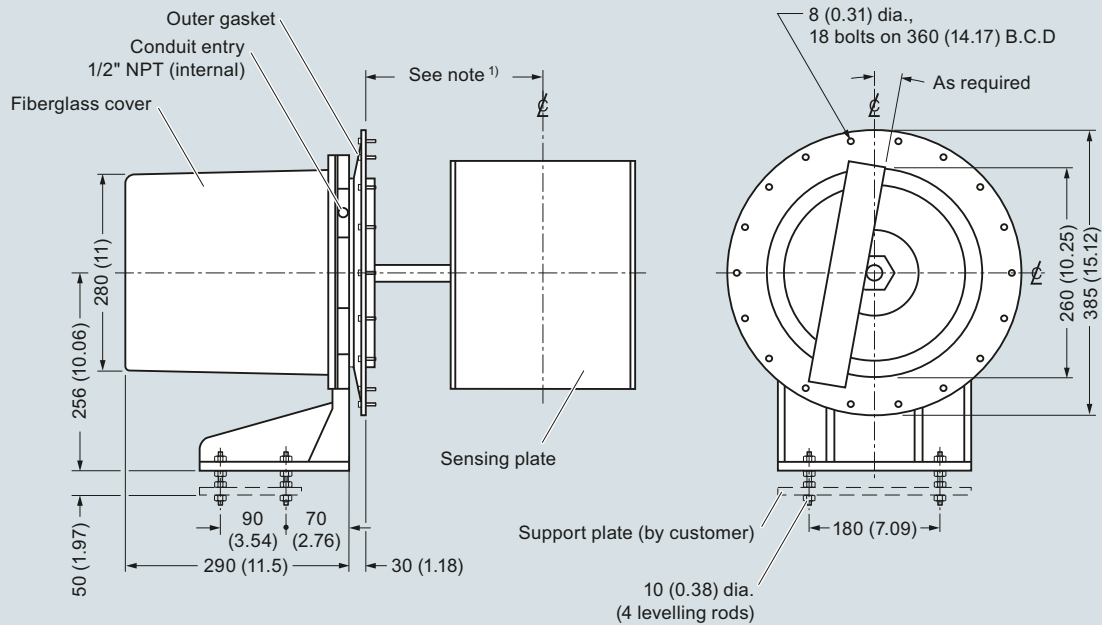
## Solid Flowmeters

### Sensing heads

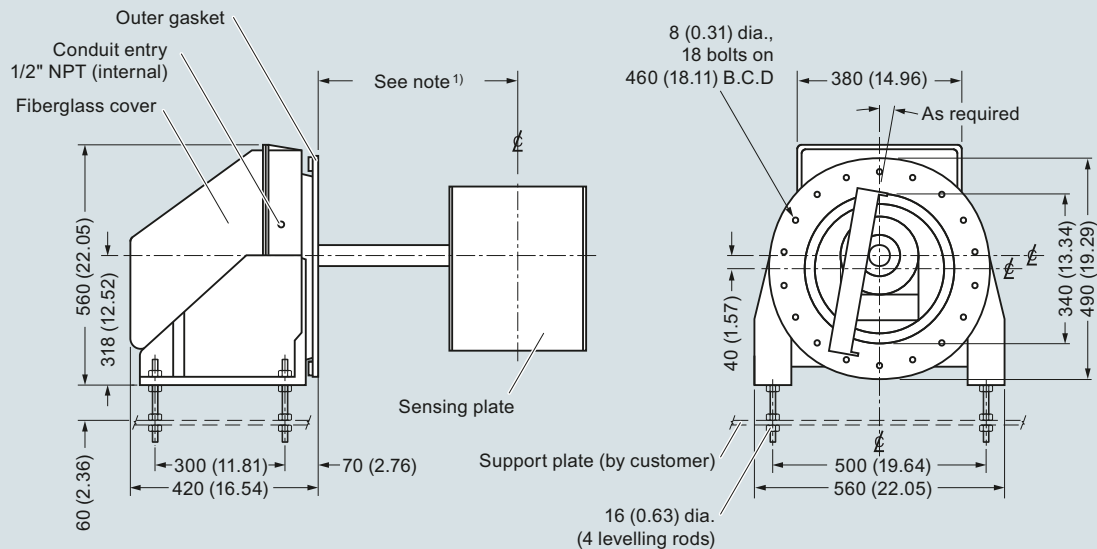
#### SITRANS WFS300 series sensing heads

#### Dimensional drawings

WFS300 Sensing Head



WFS320 Sensing Head

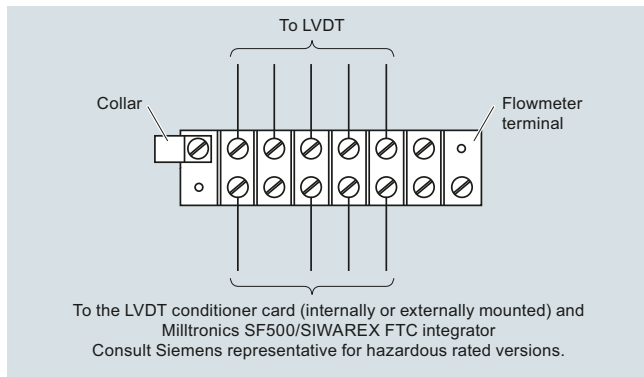


Notes:

- <sup>1)</sup> Refer to flowmeter drawing for sensing head mounting hole to flowguide centerline dimension.
- <sup>2)</sup> Sensing head support plate should be rigid and independent of flowmeter housing.
- <sup>3)</sup> Ensure outer gasket seals dust tight to flowmeter housing wall.

SITRANS WFS300 sensing heads, dimensions in mm (inch)



**Circuit diagrams**

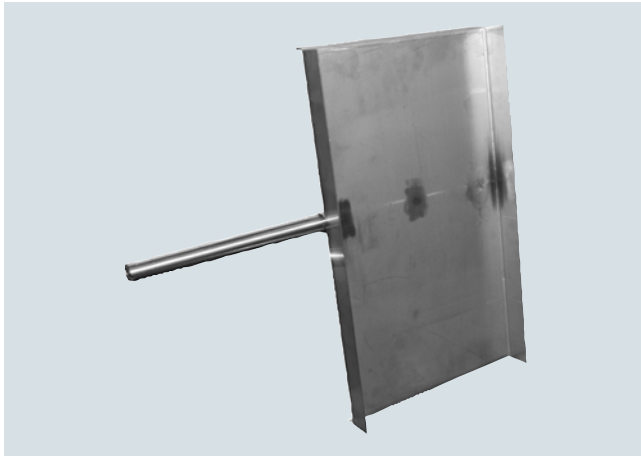
SITRANS WFS300 sensing heads connections

## Solid Flowmeters

### Sensing plates

#### SITRANS flowmeter sensing plates

##### Overview



The sensing plate transfers the impact force to the sensing head of the flowmeter.

##### Selection and ordering data

###### SITRANS flowmeter sensing plates

The sensing plate transfers the impact force to the sensing head of the flowmeter

➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

###### Version

WF330, 40 t/h, base mount or side mount	1
WF340, 40 t/h, base mount or side mount	3
WF350, 40 t/h, base mount or side mount	4
WF330, 300 t/h	5
WF340, 300 t/h	6
WF350, 300 t/h	7
C-40	8

###### Plate size

18 x 10 inch (457.2 x 254 mm), for version option 1 with 2, 4 or 6 inch (50.8, 101.6 or 152.4 mm) flowguide <sup>1)</sup>	A
20 x 12 inch (508 x 304.8 mm), for version option 1 with 8 inch (203.2 mm) flowguide <sup>1)</sup>	B
20 x 14 inch (508 x 355.6 mm), for version option 1 with 10 inch (254 mm) flowguide <sup>1)</sup>	C
22 x 12 inch (558.8 x 304.8 mm), for version option 5 with 6 or 8 inch (152.4 or 203.2 mm) flowguide <sup>1)</sup>	D
24 x 16 inch (609.6 x 406.4 mm), for version option 5 with 10 or 12 inch (254 or 304.8 mm) flowguide <sup>1)</sup>	E
24 x 20 inch (609.6 x 508 mm), for version option 5 with 14 or 16 inch (355.6 or 406.4 mm) flowguide <sup>1)</sup>	F
12 x 12 inch (304.8 x 304.8 mm), for version option 4 with 8 inch (203.2 mm) flowguide <sup>2)</sup>	G
16 x 14 inch (406.4 x 355.6 mm), for version option 4 with 12 inch (304.8 mm) flowguide <sup>2)</sup>	H

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##### Selection and ordering data

###### SITRANS flowmeter sensing plates

The sensing plate transfers the impact force to the sensing head of the flowmeter

14 x 18 inch (355.6 x 457.2 mm), for version option 7 with 10 inch (254 mm) flowguide <sup>2)</sup>	J
18 x 20 inch (457.2 x 508 mm), for version option 7 with 14 inch (355.6 mm) flowguide <sup>2)</sup>	K
24 x 22 inch (609.6 x 558.8 mm), for version option 7 with 20 inch (508 mm) flowguide <sup>2)</sup>	L
12 x 10 inch (304.8 x 254 mm), for version option 3 with 3 x 6 inch (76.2 x 152.4 mm) flowguide <sup>3)</sup>	M
14 x 14 inch (355.6 x 355.6 mm), for version option 3 with 4 x 10 inch (101.6 x 254 mm) flowguide <sup>3)</sup>	N
16 x 16 inch (406.4 x 406.4 mm), for version option 3 with 5 x 12 inch (127 x 304.8 mm) flowguide <sup>3)</sup>	P
18 x 20 inch (457.2 x 508 mm), for version option 6 with 5 x 16 inch (127 x 406.4 mm) flowguide <sup>3)</sup>	Q
20 x 24 inch (508 x 609.6 mm), for version option 6 with 6 x 20 inch (152.4 x 508 mm) flowguide <sup>3)</sup>	R
12 x 12 inch (304.8 x 304.8 mm), for C-40 with 6 inch (152.4 mm) flowguide <sup>4)</sup>	S
12 x 14 inch (304.8 x 355.6 mm), for C-40 with 10 inch (254 mm) flowguide <sup>4)</sup>	T

###### Plate material

304 (1.4301) stainless steel <sup>5)</sup>	A
304 (1.4301) stainless steel <sup>6)</sup>	B
316 (1.4401) stainless steel <sup>7)</sup>	C
316 (1.4401) stainless steel <sup>6)</sup>	D
304 (1.4301) stainless steel, heavy-duty <sup>7)</sup>	E
304 (1.4301) stainless steel, heavy-duty <sup>6)</sup>	F
316 (1.4401) stainless steel, light-duty <sup>8)</sup>	G
316 (1.4401) stainless steel, heavy-duty <sup>7)</sup>	H
316 (1.4401) stainless steel, heavy-duty <sup>6)</sup>	J

###### Plate liner

No liner	1
Polyurethane <sup>7)</sup>	2
Polyurethane <sup>6)</sup> 9)	3
PTFE <sup>7)</sup>	4
PTFE <sup>6)</sup>	5
Alumina ceramic tiles <sup>7)</sup>	6
Alumina ceramic tiles <sup>6)</sup>	7
Plasma A/R <sup>7)</sup>	8
Plasma A/R <sup>6)</sup>	0

###### Further designs

Please add "-Z" to article no. and specify order code(s).

Inspection certificate type 3.1 per EN 10204

###### Instruction manuals

All literature is available to download for free, in a range of languages, at

<http://www.siemens.com/weighing/documentation>

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##### Order Code

C12

<sup>1)</sup> See 7MH7102, page 6/18.

<sup>2)</sup> See 7MH7106, page 6/23.

<sup>3)</sup> See 7MH7104, page 6/21.

<sup>4)</sup> Available as spare part only.

<sup>5)</sup> Available with flowmeter version 1 ... 4 and 8 only.

<sup>6)</sup> Available with flowmeter version 5 ... 7 only.

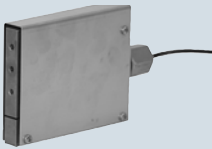

<sup>7)</sup> Available with flowmeter version 1 ... 4 only.

<sup>8)</sup> Available with flowmeter version 1, 2 and 3 only.

<sup>9)</sup> Maximum material temperature: 85 °C (185 °F).

Selection and ordering data

Flowmeter spare load cells

Millflo flowmeters stainless steel, with hardware	Article No.	
1 lb (0.5 kg)	Replace with 2 lb	
2 lb (0.9 kg)	PBD-23900176	
5 lb (2.3 kg)	PBD-23900177	
10 lb (4.6 kg)	7MH7725-1AA	
20 lb (9.2 kg)	7MH7725-1AB	
Millflo L, M, and MA series flowmeters stainless steel, with hardware		
50 lb (22.7 kg)	7MH7725-1AC	
100 lb (45.4 kg)	7MH7725-1AD	

## Solid Flowmeters

### Notes