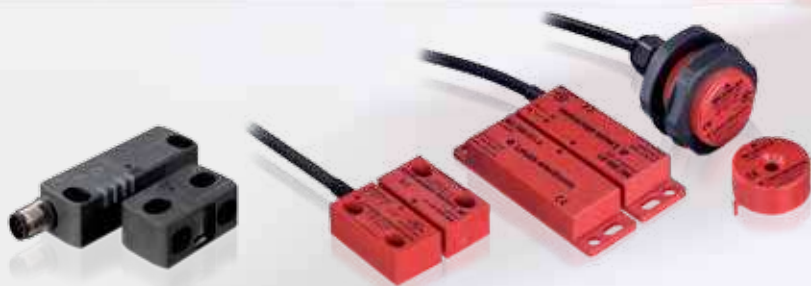


the **sensor** people

## Safety proximity sensors –

Monitoring of guards in  
rough application cases



## Safety Transponders and Magnetically Coded Sensors – **contactless** and reliable.

**Reliable guarding even under rough environmental conditions.**

Leuze electronic offers reliable sensor series for the monitoring of guards which are perfect in rough, easily contaminated or humid environments and which, thanks to the closed construction in a high-strength plastic housing, also fulfill the highest demands on hygiene and robustness. Due to the large variety of models, you will quickly find the optimal solution for your individual task.

Magnetically Coded Sensors from the MC 300 series, supplemented by the MSI-MC300 Safety Relays, make the perfect safety systems. Special reed contacts detect the coded magnetic fields of the actuators without making contact.

Due to the intelligent and extremely robust RFID technology, the Safety Transponders of the RD 800 series are well-suited for applications in

which a very high level of safety and increased protection against manipulation is necessary – even with series connections. They are not sensitive to shocks and vibrations, magnetic fields and iron and always signal the exact state via four multicolor diagnostic LEDs. This considerably reduces time and effort for installation and testing.

Beverage filling (MC 336)



Circuit board printing (MC 330)



Bagging (MC 388)



## RD 800 Safety Transponders.



Three basic variants leave almost nothing to be desired concerning application conditions and protection against possible manipulation. They allow up to 32 Safety Transponders to be connected in series via the left- or right-sided M12-connection. This considerably minimizes the time and costs needed for installation – and the same high safety level is fulfilled.

No matter if you require the RD 800-S for single connections or the RD 800-M for multiple connections – depending on the degree of risk, you can select ready-configured systems with standard or unique code detection (S- or U-variants). Teachable P-variants are a good choice if, for example, increased flexibility is required on site. These can be flexibly and individually programmed for nearly any application.

	RD 800 (-SS, -SU, -MS, -MU, -MP)
Sensor dimensions	88x25x18 mm
Actuator dimensions	45x25x18 mm
Assured cut-in distance (Sao)	10 mm
Cut-out distance	14 mm
Assured cut-out distance (Sar)	16 mm

Door guarding (RD 800-MS)



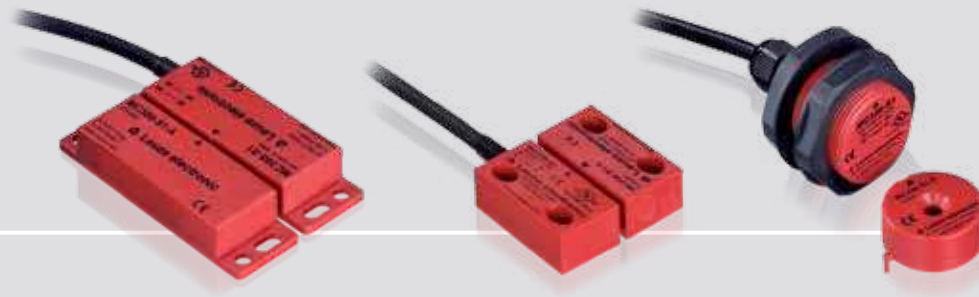
Hood guarding (RD 800-MP)



Sliding door guarding (RD 800-MU)



## MC 300 Magnetically Coded Sensors with MSI-MC310 and MSI-MC311 Safety Relays.



The cylindrical design as well as the cubic models create a selection of sensors which are well-suited to the respective application. The delivery contents always include the sensor and corresponding actuator as well as mounting screws. The MC 300 series is characterized by simple start-up, a compact housing and a low price.

	MC 388	MC 336	MC 330
Dimensions	88x25x13 mm	36x26x13 mm	M30 x 36 mm
Assured cut-in distance (Sao)	< 6 mm	< 3 mm	< 6 mm
Cut-out distance	> 13 mm	> 8 mm	> 12 mm
Assured cut-out distance (Sar)	> 30 mm	> 11 mm	> 14 mm



The MSI-MC310 and MSI-MC311 Safety Relays analyze the MC 300 sensors and forward the E-Stop command to the control when e.g. doors, flaps or hoods are opened. PDF-certified safety systems can only be built with these device combinations. For guards that are accessible from behind, a reset button can be connected to the Safety Relay for manual starting.

- Stop function
- Start/restart interlock (RES)
- Contactor monitoring (EDM)
- Up to and including category 4, Performance Level PL e in accordance with EN ISO 13849



**Two** systems, **one** benefit:  
reliable **safety**.

MC 300 Magnetically Coded Sensors with MSI-MC300 Safety Relays, like the RD 800 RFID Safety Transponders, can be used to build reliable safety systems without open contacts or mechanisms.

	RD 800 RFID Safety Transponders	MC 300 Magnetically Coded Sensors
Safety category	Cat 4, PL e (also with series connection)	Cat 4, PL e. With series connection: Cat 3, PL e/d
Serial production capability (series connection)	up to 32 transponders	up to 30 MC 300
Variants	3 product variants with increasing flexibility	3 models with different dimensions and switching distances
Actuator assignment	direct, variable	serial assignment
Protection against manipulation	very high	high
Diagnostics function	LEDs, signal output	—
Switching output or contact type	2x OSSD, 1x signal	1NO/1NC, 2NO
Protection rating	IP 67, IP 69K	IP 67
Certifications	TÜV certified, 	TÜV certified with MSI-MC300 Safety Relay, 

### Typical areas of application

- Under critical environmental conditions (dust, humidity, etc.)
- Conveyor and storage systems, woodworking, pharmaceutical and food industries
- RD 800: increased security against tampering and detection reliability, e.g. in the pharmaceutical industry



## **Optoelectronic Sensors**

Cubic Series  
Cylindrical Sensors, Mini Sensors, Fiber Optic Sensors  
Measuring Sensors  
Special Sensors  
Light Curtains  
Forked Sensors  
Double Sheet Monitoring, Splice Detection  
Inductive Switches  
Accessories

## **Identification Systems**

### **Data Transmission Systems**

### **Distance Measurement**

Bar Code Readers  
RF-IDent-Systems  
Modular Interfacing Units  
Industrial Image Processing Systems  
Optical Data Transmission Systems  
Optical Distance Measurement/Positioning  
Mobile Code Readers

## **Safety Sensors**

### **Safety Systems**

### **Safety Services**

Safety Laser Scanners  
Safety Light Curtains  
Transceivers and Multiple Light Beam Safety Devices  
Single Light Beam Safety Devices  
AS-i-Safety Product Range  
Safety Sensor Technology for PROFIBUS DP  
Safety Switches, Safety Locking Devices, Safety Command Devices  
Safety Relays  
Sensor Accessories and Signal Devices  
Safety Engineering Software  
Machine Safety Services

© Leuze electronic GmbH + Co. KG

In der Braike 1

D-73277 Owen / Germany

Phone +49 7021 573-0

Fax +49 7021 573-199

info@leuze.de

www.leuze.com