



RSS260-I1-D-ST

- Individual coding with RFID technology
- Coding level "High" according to ISO 14119
- 1 x connector plug M8
- Frontal and lateral actuation enabled
- Thermoplastic enclosure
- Simple mounting without additional angle
- RFID-technology for needs-based protection against tampering

Data

Approvals - Standards

Certificates	cULus
	TÜV
	IC
	FCC
	ANATEL

General data

Standards	EN IEC 60947-5-3
	EN IEC 61508
	EN ISO 13849-1
Coding	Individual coding
Coding level according to EN ISO 14119	High
Working principle	RFID
Frequency band RFID	125 kHz
Transmitter output RFID, maximum	-6 dBm
Housing construction form	Block
Installation conditions (mechanical)	not flush
Sensor topology	Sensor for series wiring
Housing material	Plastic, thermoplastic, self-extinguishing

General data

Active area	Glass-fibre, thermoplastic
Reaction time, maximum	100 ms
Duration of risk, maximum	200 ms
Reaction time, switching off safety outputs via actuator, maximum	100 ms
Gross weight	60 g

General data - Features

Diagnostic output	Yes
Short circuit detection	Yes
Cross-circuit detection	Yes
Series-wiring	Yes
Safety functions	Yes
Cascadable	Yes
Integral system diagnostics, status	Yes
Number of LEDs	3
Number of semi-conductor outputs with signaling function	1
Number of poles	8
Number of fail-safe digital outputs	2

Safety classification

Standards	EN IEC 61508
	EN ISO 13849-1
Performance Level, up to	e
Category	4
PFH value	6.80×10^{-10} /h
PFD value	1.20×10^{-4}
Safety Integrity Level (SIL), suitable for applications in	3
Mission time	20 Year(s)

Mechanical data

Actuating panels	lateral
	front side
Active area	front

Mechanical data

	lateral
Mounting	A 20 mm screw length usually suffices to mount the sensor. When the mounting plates are used, we recommend 25 mm long screws.
Type of the fixing screws	2x M4
Tightening torque of the fixing screws, maximum	0.8 Nm

Mechanical data - Switching distances

Typical switching distance, frontal	12 mm
Typical switching distance, lateral	9 mm
Assured switching distance "ON", frontal	10 mm
Assured switching distance "OFF", frontal	18 mm
Assured switching distance "ON", lateral	6 mm
Assured switching distance "OFF", lateral	15 mm
Note (Sao)	The specifications of the safety switching distance Sao refer to a temperature range of -10 °C ... +60 °C. For a temperature range of -28 °C ... +65 °C, Sao is reduced by 2 mm.
Note (switching distance)	All switching distances in accordance EN IEC 60947-5-3
	Axial misalignment, a horizontal and vertical misalignment of the safety sensor and the actuator are tolerated. The possible misalignment depends on the distance of the active surfaces of the sensor and the actuator. The sensor remains active within the t
Hysteresis (Switching distance), maximum	2 mm
Repeat accuracy R	0.5 mm
Note (Repeat accuracy R)	Axial offset: The long side allows for a maximum height misalignment (x) of sensor and actuator of 8 mm (e.g. mounting tolerance or due to guard door sagging). The axial misalignment (y) is max. ± 18 mm (see figure: Operating principle).Minimum clearance

Mechanical data - Connection technique

Note (length of the sensor chain)	Cable length and cross-section change the voltage drop depending on the output current
Note (series-wiring)	Unlimited number of devices, observe external line fusing, max. 31 devices in case of serial diagnostic SD
Termination	Connector M8, 8-pole

Mechanical data - Dimensions

Length of sensor	29.5 mm
Width of sensor	39.2 mm

Mechanical data - Dimensions

Height of sensor	18 mm
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Ambient conditions

IP Degree of protection	IP67
	IP65
Ambient temperature	-28 ... +65 °C
Storage and transport temperature	-28 ... +85 °C
Relative humidity, maximum	93 %
Note (Relative humidity)	non-condensing
	non-icing
Resistance to vibrations	10 ... 55 Hz, amplitude 1 mm
Resistance to shock	30 g / 11 ms
Permissible installation altitude above sea level, maximum	2,000 m

Ambient conditions - Insulation values

Rated insulation voltage U_i	32 VDC
Rated impulse withstand voltage U_{imp}	0.8 kV
Overvoltage category	III
Degree of pollution	3

Electrical data

Operating voltage	24 VDC -15 % / +10 % (stabilised PELV power supply)
Operating current, minimum	0.5 mA
No-load supply current I_0 , typical	35 mA
Rated operating voltage	24 VDC
Operating current	600 mA
Required rated short-circuit current	100 A
Time to readiness, maximum	2,000 ms
Switching frequency, maximum	1 Hz
Electrical fuse rating, maximum	2 A

Electrical data - Safety digital inputs

Designation, Safety inputs	X1 and X2
Current consumption of the safety inputs	5 mA

Electrical data - Safety digital inputs

Test pulse duration, maximum	1 ms
Test pulse interval, minimum	100 ms
Classification ZVEI CB24I, Sink	C1
Classification ZVEI CB24I, Source	C1
	C2
	C3

Electrical data - Safety digital outputs

Designation, Safety outputs	Y1 and Y2
Rated operating current (safety outputs)	250 mA
Output current, (fail-safe output), maximum	0.25 A
Design of control elements	short-circuit proof, p-type
Voltage drop U_d , maximum	1 V
Leakage current I_r , maximum	0.5 mA
Voltage, Utilisation category DC-12	24 VDC
Current, Utilisation category DC-12	0.25 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	0.25 A
Test pulse interval, typical	1,000 ms
Test pulse duration, maximum	1 ms
Classification ZVEI CB24I, Source	C2
Classification ZVEI CB24I, Sink	C1
	C2

Electrical data - Diagnostic outputs

Designation, Diagnostic outputs	OUT
Operating current	50 mA
Voltage drop U_d , maximum	2 V
Voltage, Utilisation category DC-12	24 VDC
Current, Utilisation category DC-12	0.05 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	0.05 A

Electrical data - Electromagnetic compatibility (EMC)

Interfering radiation	IEC 61000-6-4
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Status indication

Note (LED switching conditions display)	LED green: Supply voltage
	LED red: Fault
	LED yellow: Operating condition

Pin assignment

PIN 1	A1 Ue: White
PIN 2	X1 safety input 1: Brown
PIN 3	A2 GND: Green
PIN 4	Y1 safety output 1: Yellow
PIN 5	OUT Diagnostic output OUT Grey
PIN 6	X2 safety input 2: Pink
PIN 7	Y2 safety output 2: Blue
PIN 8	IN without function: Red

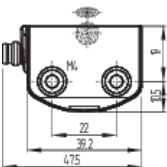
Pictures

Product picture (catalogue individual photo)



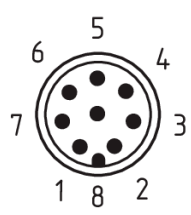
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Dimensional drawing basic component



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Contact arrangement



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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.
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