

## Datasheet - RSS260-I1-SD-ST

Safety sensors / RSS260



- Thermoplastic enclosure
- Simple mounting without additional angle
- RFID-technology for needs-based protection against tampering
- Individual coding with RFID technology
- Coding level "High" according to ISO 14119
- 1 x connector plug M8
- Frontal and lateral actuation enabled
- Max. 31 sensors can be wired in series.

(Minor differences between the printed image and the original product may exist!)

### Ordering details

Product type description	RSS260-I1-SD-ST
Article number	103003604
EAN Code	
eCl@ss	27-27-24-01

### Approval

Approval



### Classification

Standards	EN ISO 13849-1, IEC 61508, IEC 60947-5-3, EN 62061
PL	bis e
Control category	bis 4
PFH value	6.8 x 10 <sup>-10</sup> /h
SIL	3
Mission time	20 Years
Classification	PDF-M

### Global Properties

Permanent light	RSS260
Standards	IEC 60947-5-3
Compliance with the Directives (Y/N)	Yes

Suitable for safety functions (Y/N)	Yes
Function	Sensor for series wiring
Mounting	A 20 mm screw length usually suffices to mount the sensor. When the mounting plates are used, we recommend 25 mm long screws.
Active principle	RFID
Coding	Individual coding
Coding levels according to ISO 14119	High
Materials	
- Material of the housings	Plastic, thermoplastic, self-extinguishing
- Material of the active surface	Plastic, thermoplastic
Housing construction form	Block
Weight	
Diagnostic output (Y/N)	Yes
Reaction time	≤ 100
Duration of risk	≤ 200
Time to readiness	≤ 2 s
Cascadable (Y/N)	Yes
Recommended actuator	RST260-1, RST16-1, RST-U-2
Series-wiring	up to 31 components

## Mechanical data

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Design of electrical connection	Connector M8
mechanical installation conditions	not flush
Actuating planes	Actuation front side and lateral
Active area	front and lateral
Switch distance	front 12, lateral 9
Ensured switch distance ON	front 10, lateral 6
Ensured switch distance OFF	front 18, lateral 15
hysteresis	max. 2 mm
Repeat accuracy R R	< 0,5 mm
notice	<b>Axial offset:</b> 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 drawing: Operating principle
	Minimum clearance between two sensor systems 100 mm
restistance to shock	30 g / 11 ms
Resistance to vibration	10 ... 55 HZ, Amplitude 1 mm

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+65
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+85
Protection class	IP65, IP67 to IEC/EN 60529
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage U <sub>imp</sub>	0,8 kV
- Overvoltage category	III
- Degree of pollution	3

## Electromagnetic compatibility (EMC)

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Interfering radiation	to IEC 61000-6-4
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## Electrical data

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Cross circuit/short circuit recognition possible (Y/N)	Yes
Voltage type	DC
Switch frequency	1
Rated insulation voltage	32
Rated operating voltage $U_e$ (stabilised PELV)	
- Min. Rated operating voltage	20.4 VDC
- Max. Rated operating voltage	26.4 VDC
Operating current $I_e$	0,6 A
No-load current $I_0$	0,1 A
Required rated short-circuit current notice	100 A
	The cable section of the interconnecting cable must be observed for both wiring variants! Cable length and cable section alter the voltage drop depending on the output current

## Electrical data - Safety inputs

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Safety inputs	X1 and X2
Rated operating voltage $U_e$	24 VDC – 15% / +10%

## Electrical data - Safety outputs

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Safety outputs	Y1 and Y2
Number of secure semi-conductor outputs	2
Max. output current at secured output	0,25 A
Residual current $I_r$	$\leq 0,5$ mA
Operating current $I_e$	max. 0,25 A
Utilisation category	DC-12: 24 V / 0,25 A DC-13: 24 V / 0,25 A

## Electrical data - Diagnostic output

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Serial diagnostics (Y/N)	Yes
Fuse rating	short-circuit proof
Design of control output	p-type
Number of semi-conductor outputs with signaling function	1
Operating current	0,05 A
Voltage drop	< 1
Utilisation category	DC-12: 24 V / 0,05 A DC-13: 24 V / 0,05 A
Wiring capacitance for serial diagnostics	-

## LED switching conditions display

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LED switching conditions display (Y/N)	Yes
Number of LED's	3
- green LED	Supply voltage
- red LED	Error
- yellow LED	switching condition

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Explosion protection categories for gases	None
Explosion protected category for dusts	None

## Dimensions

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Dimensions of the sensor	
- Width of sensor	39.2 mm
- Height of sensor	18
- Length of sensor	29.5

## Pin assignment

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1 - A1 Ue	White
2 - X1 Safety input 1	Brown
3 - A2 GND	green
4 - Y1 Safety output 1	yellow
5 - OUT Diagnostic output OUT	Grey
6 - X2 Safety input 2	Pink
7 - Y2 Safety output 2	Blue
8 - IN without function	red

## Ordering code

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RSS260-(1)-(2)-ST

<b>(1)</b>	
<i>without</i>	Included in standard version Coding
<b>I1</b>	Individual coding
<b>I2</b>	Individual coding, repeated teaching enabled
<b>(2)</b>	
<b>D</b>	with Diagnostic output
<b>SD</b>	with serial diagnostic function

## Documents

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**Operating instructions and Declaration of conformity** (en) 638 kB, 10.04.2018

Code: mrl\_rss260-lst\_en

**Operating instructions and Declaration of conformity** (pt) 644 kB, 04.05.2018

Code: mrl\_rss260-lst\_pt

**Operating instructions and Declaration of conformity** (jp) 714 kB, 25.07.2017

Code: mrl\_rss260-lst\_jp

**Operating instructions and Declaration of conformity** (de) 595 kB, 10.04.2018

Code: mrl\_rss260-lst\_de

**Operating instructions and Declaration of conformity** (es) 640 kB, 09.05.2018

Code: mrl\_rss260-lst\_es

**Operating instructions and Declaration of conformity** (it) 638 kB, 18.01.2018

Code: mrl\_rss260-lst\_it

**Operating instructions and Declaration of conformity** (nl) 639 kB, 14.08.2018

Code: mrl\_rss260-1st\_nl

**Operating instructions and Declaration of conformity** (pl) 658 kB, 14.08.2018

Code: mrl\_rss260-1st\_pl

**Operating instructions and Declaration of conformity** (fr) 640 kB, 04.05.2018

Code: mrl\_rss260-1st\_fr

**Brochure** (es) 358 kB, 18.12.2013

Code: b\_rssp01\_es

**Brochure** (it) 338 kB, 04.12.2013

Code: b\_rssp01\_it

**Brochure** (fr) 341 kB, 02.01.2014

Code: b\_rssp01\_fr

**Brochure** (pt) 344 kB, 10.12.2013

Code: b\_rssp01\_pt

**Brochure** (de) 358 kB, 04.12.2013

Code: b\_rssp01\_de

**Brochure** (en) 342 kB, 04.12.2013

Code: b\_rssp01\_en

**Brochure** (cs) 379 kB, 12.03.2015

Code: b\_rssp01\_cs

**Brochure** (nl) 363 kB, 03.02.2014

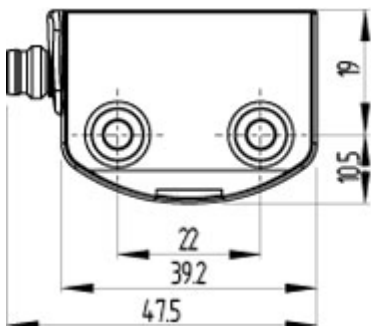
Code: b\_rssp01\_nl

**TÜV certification** (de, en) 1 MB, 07.08.2017

Code: z\_rssp02

## Images

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Dimensional drawing (basic component)

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## System components

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### Actuator



- Actuation from side
- Simple mounting
- Mounting 2 x M4

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**103004336 - RST16-1**



- Frontal actuation from assembly direction
- Flat design
- Mounting 2 x M5

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**103005994 - RST-U-2**



- Frontal actuation from assembly direction
- Small body
- Mounting 1 x M3 plus Twist protection

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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