

Datasheet - RSS260-D-ST

Safety sensors / RSS260



- Thermoplastic enclosure
- Simple mounting without additional angle
- RFID-technology for needs-based protection against tampering
- Universal coding with RFID technology
- 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-D-ST
Article number	103003602
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 ⁻¹⁰ /h
SIL	3
Mission time	20 Years
Classification	PDF-M

Global Properties

Product name	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 levels according to ISO 14119	low
Coding	Universal coding
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 ms
Duration of risk	≤ 200 ms
Time to readiness	≤ 5 s
Cascadable (Y/N)	Yes
Recommended actuator	RST260-1, RST16-1, RST-U-2
Series-wiring	up to 31 components

Mechanical data

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 S_n	front 12 mm, lateral 9 mm
Ensured switch distance ON S_{ao}	front 10 mm, lateral 6 mm
Ensured switch distance OFF S_{ar}	front 18 mm, lateral 15 mm
hysteresis	max. 2 mm
Repeat accuracy R_R	< 0,5 mm
notice	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 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

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

Electromagnetic compatibility (EMC)

Interfering radiation	to IEC 61000-6-4
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Electrical data

Cross circuit/short circuit recognition possible (Y/N)	Yes
Voltage type	DC
Switch frequency	1 Hz
Rated insulation voltage U_i	32 VDC
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

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

Electrical data - Safety outputs

Safety outputs	Y1 and Y2
Number of secure semi-conductor outputs	2 piece
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

Serial diagnostics (Y/N)	No
Fuse rating	short-circuit proof
Design of control output	p-type
Number of semi-conductor outputs with signaling function	1 piece
Operating current I_e	max. 0,05 A
Voltage drop U_d	< 1 V
Utilisation category	DC-12: 24 V / 0,05 A DC-13: 24 V / 0,05 A

LED switching conditions display

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

ATEX

Explosion protection categories for gases

None

Explosion protected category for dusts

None

Dimensions

Dimensions of the sensor

- Width of sensor	40 mm
- Height of sensor	18 mm
- Length of sensor	29.5 mm

Pin assignment

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

RSS260-(1)-(2)-ST

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

Documents

Operating instructions and Declaration of conformity (jp) 750 kB, 27.07.2016

Code: mrl_rss260_jp

Operating instructions and Declaration of conformity (it) 493 kB, 21.07.2016

Code: mrl_rss260_it

Operating instructions and Declaration of conformity (nl) 472 kB, 14.07.2014

Code: mrl_rss260_nl

Operating instructions and Declaration of conformity (es) 494 kB, 18.07.2016

Code: mrl_rss260_es

Operating instructions and Declaration of conformity (fr) 494 kB, 21.07.2016

Code: mrl_rss260_fr

Operating instructions and Declaration of conformity (de) 483 kB, 18.04.2016

Code: mrl_rss260_de

Operating instructions and Declaration of conformity (pl) 511 kB, 21.07.2016

Code: mrl_rss260_pl

Operating instructions and Declaration of conformity (en) 493 kB, 18.04.2016

Code: mrl_rss260_en

Operating instructions and Declaration of conformity (sv) 492 kB, 07.08.2015

Code: mrl_rss260_sv

Brochure (de) 5 MB, 11.08.2015

Code: b_css_brosch_de

Brochure (en) 13 MB, 11.08.2015

Code: b_css_brosch_en

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

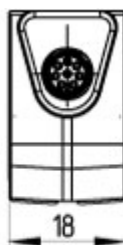
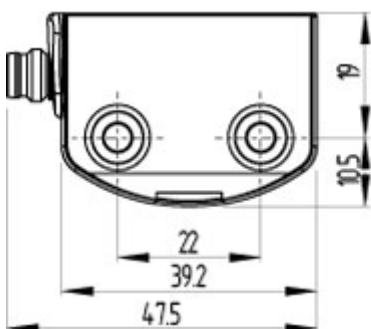
Brochure (cs) 379 kB, 12.03.2015

Code: b_rssp01_cs

TÜV certification (de, en) 556 kB, 20.01.2016

Code: z_rssp02

Images



System components

Actuator



103004318 - RST260-1

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



103004336 - RST16-1

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



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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