

RSS36-D-ST



- Actuation from side
- Thermoplastic enclosure
- 27 mm x 108.2 mm x 35 mm
- Misaligned actuation possible
- 1 x connector socket M12, 8-pole
- Universal coding with RFID technology
- Max. 31 sensors can be wired in series.
- 2 short-circuit proof PNP safety outputs
- High repeat accuracy of the switching points
- RFID-technology for needs-based protection against tampering
- Integral cross-short, wire-breakage and external voltage monitoring of the safety cables up to the control cabinet

Data

Ordering data

Product type description	RSS 36-D-ST
Article number (order number)	101213954
EAN (European Article Number)	4030661410623
eCl@ss number, Version 9.0	27-27-24-03

Certifications

Certificates	TÜV
	cULus
	ECOLAB
	EAC
	FCC
	IC

General data

Product name	RSS 36
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Standards	IEC 60947-5-3
general information	Universal coding
	Low
Active principle	RFID
Housing construction form	Block
Installation conditions (mechanical)	not flush
Sensor topology	Sensor for series wiring
Enclosure material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Active area	Glass-fibre, reinforced thermoplastic
Gross weight	80 g
Time to readiness, maximum	2,000 ms
Reaction time, maximum	100 ms
Duration of risk, maximum	200 ms

General data - Features

Diagnostic output	Yes
Short circuit detection	Yes
Short-circuit recognition	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 fail-safe digital outputs	2

Safety appraisal

Standards	ISO 13849-1 IEC 60947-5-3 EN 62061 IEC 61508
Performance Level	e
Control category to EN13849	4
PFH-value	2.70×10^{-10} /h
Safety Integrity Level (SIL)	3
Mission Time	20 Year(s)

Mechanical data

Actuating panels	lateral
Active area	lateral

Mounting	A screw length of 25 mm is sufficient for sensor mounting and for side mounting of the actuators. 30 mm long screws are recommended when the actuator is mounted upright and/or when the sealing discs are used.
Switch distance	12 mm
Ensured switch distance "ON" S_{ao}	10 mm
Ensured switch distance "OFF" S_{ar}	20 mm
Hysteresis (Switch distance), maximum	2 mm
Repeat accuracy R_R	0.5 mm
Note (Repeat accuracy R_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 between two sensor systems 100 mm.

Mechanical data - Connection technique

Terminal Connector	Connector M12, 8-pole
Note	The cable section of the interconnecting cable must be observed! Cable length and cable section alter the voltage drop depending on the output current

Mechanical data - Dimensions

Height of sensor	25 mm
Length of sensor	22 mm
Width of sensor	106.3 mm

Ambient conditions

Protection class	IP 65 to IEC/EN 60529 IP 67 to IEC/EN 60529 IP 69 to IEC/EN 60529
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+70 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+85 °C
Material temperature resistance of the cable (in motion), minimum	-10 °C
Material temperature resistance of the cable (at rest), minimum	-30 °C

Material temperature resistance (long-term), maximum	+105 °C
Resistance to vibrations to EN 60068-2-6	10 ... 55 Hz, amplitude 1 mm
Resistance to shock	30 g / 11 ms III

Ambient conditions - Insulation value

Rated impulse withstand voltage	0.8 kV III
Degree of pollution to VDE 0100	3

Electrical data

Voltage type	DC (direct current)
No-load current	100 mA
Rated operating voltage	24 VDC –15 % / +10 %
Rated operating voltage, minimum	20.4 VDC
Rated operating voltage, maximum	26.4 VDC
Operating current	600 mA
Required rated short-circuit current to EN 60947-5-1	100 A
Switching frequency, approx.	1 Hz

Electrical data - Fail-safe digital outputs

Rated operating current (safety outputs)	250 mA
Output current, (fail-safe output), maximum	0.25 A
	P-type
	1 V
Current leakage	0.5 mA

Electrical data - Diagnostic output

P-type
2 V

Electrical data - Electromagnetic compatibility (EMC)

IEC 61000-6-4
IEC 60947-3

Status indication

Note (LED switching conditions display)

LED yellow: Operating condition
LED green: Supply voltage
LED red: Fault

Pin assignment

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

Scope of delivery

Included in delivery	Actuators must be ordered separately.
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Accessory

Recommendation (actuator)	RST 36-1 RST 36-1-R PROTECT PSC1 SRB-E-301ST SRB-E-201LC
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Notes

Note (General)	Evaluation requirements: dual-channel safety input, suitable for p-type sensors with NO function. The safety-monitoring module must tolerate internal functional tests of the sensors with cyclic switch-off of the sensor outputs for max. 2 ms. Short-circuit recognition by the evaluation is not necessary.
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Ordering code

Product type description:

RSS 36 (1)-(2)-(3)-ST

(1)

without Standard coding

I1 Individual coding

I2 Individual coding, for multiple applications

(2)

D With diagnostic output

SD With serial diagnostic function

(3)

without without latching

R with latching, latching force approx. 18 N

Pictures

Product picture (catalogue individual photo)



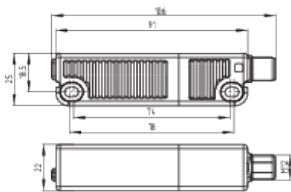
ID: krss3f11

| 106,3 kB | .png | 74.083 x 216.253 mm - 210 x 613
Pixel - 72 dpi

| 501,7 kB | .jpg | 196.144 x 572.911 mm - 556 x 1624
Pixel - 72 dpi

| 165,0 kB | .jpg | 27.093 x 79.079 mm - 320 x 934
Pixel - 300 dpi

Dimensional drawing basic component



ID: 1rss3g03

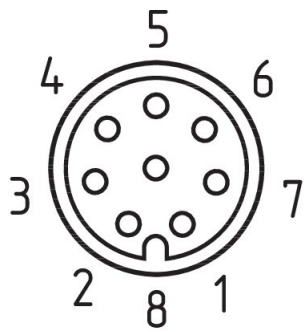
| 25,8 kB | .jpg | 112.889 x 78.317 mm - 320 x 222
Pixel - 72 dpi

| 8,8 kB | .png | 74.083 x 51.506 mm - 210 x 146 Pixel
- 72 dpi

| 55,0 kB | .cdr |

| 124,2 kB | .jpg | 352.778 x 245.181 mm - 1000 x 695
Pixel - 72 dpi

Contact arrangement



ID: km23-k8a

| 18,0 kB | .cdr |

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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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