

RSS 36-SD-R-ST



- Actuation from side
- Thermoplastic enclosure
- 27 mm x 108.2 mm x 35 mm
- serial diagnostic output
- 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

RSS 36-SD-R-ST

101217290

EAN (European Article Number)

4030661413419

eCI@ss number, Version 9.0 27-27-24-03

Approval - Standards

TÜV
cULus
ECOLAB
EAC
FCC
IC

General data

	RSS 36
	IEC 60947-5-3
general information	Universal coding
Coding level according to ISO 14119	Low
	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	100 g
Time to readiness, maximum	2,000 ms
Reaction time, maximum	100 ms
Duration of risk, maximum	200 ms

General data - Features

Serial diagnostics	Yes
Latching	Yes
Diagnostic output	Yes
Short circuit detection	Yes
Short-circuit recognition	Yes
Safety functions	Yes
Cascadable	Yes
Integral System	Yes
Diagnostics, status	Yes
Number of LEDs	3
Number of semi-conductor outputs with signaling function	1
Number of fail-safe digital outputs	2
Number of Series-wiring of sensors	31

Safety appraisal

	ISO 13849-1
	IEC 60947-5-3
	EN 62061
	IEC 61508
Performance level, up to	e

Control category to EN13849	4
PFH-value	$2.70 \times 10^{-10} / \text{h}$
Safety Integrity Level (SIL), applicable for	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)	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.
Latching force	18 N

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
	30 g / 11 ms
	III

Ambient conditions - Insulation value

Rated impulse withstand voltage	0.8 kV
	III
	3

Electrical data

Voltage type	DC (direct current)
No-load current	100 mA
	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	0.3 A
Versions	p-type
Voltage drop U_d , maximum	1 V
Current leakage	0.5 mA

Voltage, Utilisation category DC12	24 VDC
Current, Utilisation category DC12	0.3 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.3 A

Electrical data - Diagnostic output

Operating current (diagnostic output)	150 mA
Versions	p-type
Voltage drop U_d , maximum	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
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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	serial diagnostic output OUT Grey
PIN 6	X2 Safety input 2 violet
PIN 7	Y2 Safety output 2 red
PIN 8	IN serial diagnostic input Pink

Scope of delivery

Included in delivery	Actuators must be ordered separately.
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Accessory

RST 36-1
RST 36-1-R
PROTECT PSC1
SRB-E-301ST
SRB-E-201LC

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.

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

Photo/Product/Catalogue

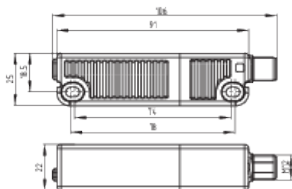


ID: krss3f11

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

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

Dimension/Product/Basic



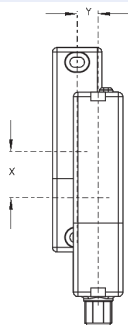
ID: 1rss3g03

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

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

| 55,0 kB | .cdr |

Illustration/Product/Function

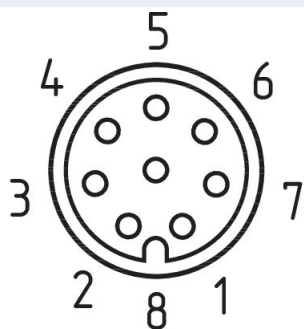


ID: krss3a01

| 182,6 kB | .jpg | 352.778 x 920.75 mm - 1000 x 2610
Pixel - 72 dpi

| 4,2 kB | .png | 74.083 x 193.322 mm - 210 x 548
Pixel - 72 dpi

Graphic/Product/PIN



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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