



## RSS16-D-ST8H

- Universal coding with RFID technology
- 1 x connector plug M12, 8-pole
- Series-wiring unlimited
- without latching
- Thermoplastic enclosure
- RFID-technology for needs-based protection against tampering
- 3 different directions of actuation
- Door stop with magnetic latching
- Connection terminal or plug connection
- Suitable for series-wiring
- Repeated individual coding with RFID technology

## Data

### Ordering data

Product type description	RSS16-D-ST8H
Article number (order number)	103004370
EAN (European Article Number)	4030661456843
eCl@ss number, version 12.0	27-27-46-01
eCl@ss number, version 11.0	27-27-24-03
eCl@ss number, version 9.0	27-27-24-03
ETIM number, version 7.0	EC001829
ETIM number, version 6.0	EC001829

### Approvals - Standards

Certificates

TÜV  
cULus  
FCC  
IC  
UKCA  
ANATEL

## General data

Standards	EN IEC 60947-5-3
Coding	Universal coding
Coding level according to EN ISO 14119	Low
Working principle	RFID
Housing construction form	Block
Installation conditions (mechanical)	not flush
Sensor topology	Sensor for series wiring
Housing material	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Active area	Glass-fibre, reinforced thermoplastic
Reaction time, maximum	100 ms
Duration of risk, maximum	200 ms
Gross weight	160 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	2
Number of semi-conductor outputs with signaling function	1
Number of fail-safe digital outputs	2

## Safety classification

Standards	EN ISO 13849-1 EN IEC 61508
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Performance Level, up to	e
Category	4
PFH value	$6.30 \times 10^{-11}$ /h
PFD value	$1.50 \times 10^{-5}$
Safety Integrity Level (SIL), suitable for applications in	3
Mission time	20 Year(s)

### Mechanical data

Actuating panels	front side rear from head
Active area	lateral front side cover-side
Mounting	2 x M5, Cylinder head screw
Tightening torque of the fixing screws	2 Nm

### Mechanical data - Switching distances according EN IEC 60947-5-3

Switch distance, typical	15 mm
Assured switching distance "ON" $S_{ao}$	12 mm
Assured switching distance "OFF" $S_{ar}$	30 mm
Hysteresis (Switching distance), maximum	2 mm
Repeat accuracy R	0.5 mm

### 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
Cable entry	M12 (A-coding)
Termination	Connector M12, 8-pole

## Mechanical data - Dimensions

Length of sensor	91 mm
Width of sensor	52 mm
Height of sensor	30 mm

## Ambient conditions

Degree of protection	IP65 IP66 IP67
Ambient temperature	-28 ... +70 °C
Storage and transport temperature	-28 ... +85 °C
Relative humidity, maximum	93 %
Note (Relative humidity)	non-condensing non-icing
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 %
Operating current, minimum	0.5 mA
No-load supply current $I_0$ , typical	100 mA
Rated operating voltage	24 VDC
Operating current	2,100 mA
Required rated short-circuit current	100 A

Time to readiness, maximum	2,000 ms
Switching frequency, maximum	1 Hz
Utilisation category DC-12	24 VDC / 0.05 A

### Electrical data - Safety digital inputs

Current consumption of the safety inputs	5 mA
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### Electrical data - Safety digital outputs

Rated operating current (safety outputs)	1,000 mA
Output current, (fail-safe output), maximum	1 A
Design of control elements	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	1 A
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	1 A

### Electrical data - Diagnostic outputs

Operating current	50 mA
Design of control elements	p-type
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)	Multi-coloured LED: Green, Red LED yellow: Operating condition LED green: Supply voltage LED red: Fault
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## Scope of delivery

Scope of delivery	Actuator must be ordered separately.
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## Accessory

Recommendation (actuator)	RST16-1
Recommended safety switchgear	PROTECT PSC1 SRB-E-301ST SRB-E-201LC

## Ordering code

Product type description:  
RSS16 (1)-(2)-(3)-(4)

(1)

<b>without</b>	Standard coding
<b>I1</b>	Individual coding
<b>I2</b>	Individual coding, for multiple applications

(2)

<b>D</b>	With diagnostic output
<b>SD</b>	With serial diagnostic function

(3)

<b>without</b>	without latching
<b>R</b>	With latching, latching force 40 ... 60 N

(4)

**ST8H**

With connector plug M12 in the middle

**CC**

with cage clamps

**SK**

Screw connection

## Pictures

### Product picture (catalogue individual photo)



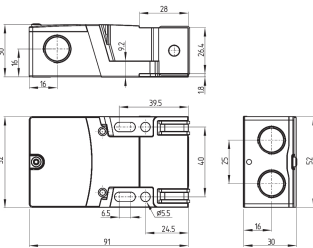
ID: krss1f02

| 1.3 MB | .jpg | 352.778 x 745.772 mm - 1000 x 2114 px - 72 dpi

| 100.6 kB | .png | 74.083 x 156.633 mm - 210 x 444 px - 72 dpi

| 45.1 kB | .jpg | 58.561 x 123.472 mm - 166 x 350 px - 72 dpi

### Dimensional drawing basic component



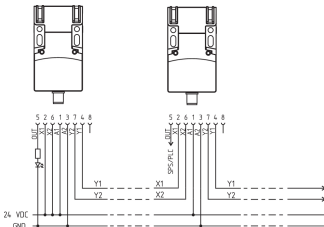
ID: krss1g01

| 436.1 kB | .ai | 198.103 x 189.251 mm - 561 x 536 px - 72 dpi

| 4.7 kB | .png | 74.083 x 56.444 mm - 210 x 160 px - 72 dpi

| 141.1 kB | .jpg | 352.778 x 268.817 mm - 1000 x 762 px - 72 dpi

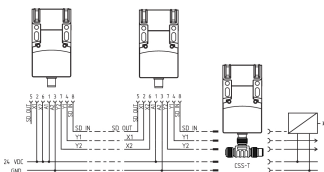
### Wiring example



ID: krss1i02

| 101.2 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701 px - 72 dpi

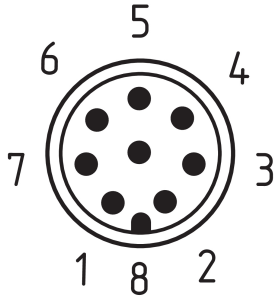
### Wiring example



ID: krss1i03

| 112.1 kB | .jpg | 352.778 x 183.444 mm - 1000 x 520 px - 72 dpi

## Contact arrangement



ID: km12-k8b

| 5.3 kB | .png | 73.731 x 87.489 mm - 209 x 248 px - 72 dpi

| 138.6 kB | .jpg | 352.425 x 417.689 mm - 999 x 1184 px - 72 dpi

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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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