



## RSS16-I2-D-R-ST8H

- Repeated individual coding with RFID technology
- Coding level "High" according to ISO 14119
- Series-wiring unlimited
- 1 x connector plug M12, 8-pole
- with 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

## Data

### Ordering data

|                               |                   |
|-------------------------------|-------------------|
| Product type description      | RSS16-I2-D-R-ST8H |
| Article number (order number) | 103004367         |
| EAN (European Article Number) | 4030661456935     |
| 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                                 | Individual coding, multiple teaching                              |
| Coding level according to EN ISO 14119 | High  |
| 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                           | 275 g   |

## General data - Features

|  |     |
|--|-----|
| Latching magnet  | Yes |
| 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<br>EN IEC 61508 |
| 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<br>rear<br>from head     |
| Active area                            | lateral<br>front side<br>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" $S_{ao}$  | 5 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<br>IP66<br>IP67        |
| Ambient temperature  | -28 ... +70 °C              |
| Storage and transport temperature                          | -28 ... +85 °C              |
| Relative humidity, maximum                                 | 93 %                        |
| Note (Relative humidity)                                   | non-condensing<br>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 |
|--|------|

### 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 |
| EMC rating            | IEC 60947-3   |

## Status indication

|   |  |
|---|--|
| Note (LED switching conditions display) | Multi-coloured LED: Green, Red<br>LED yellow: Operating condition<br>LED green: Supply voltage<br>LED red: Fault |
|---|--|

## Scope of delivery

|                   |                                      |
|-------------------|--------------------------------------|
| Scope of delivery | Actuator must be ordered separately. |
|-------------------|--------------------------------------|

## Accessory

|                               |  |
|-------------------------------|--|
| Recommendation (actuator)     | RST16-1-R                                  |
| Recommended safety switchgear | PROTECT PSC1<br>SRB-E-301ST<br>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)

---

without

without latching

R

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)



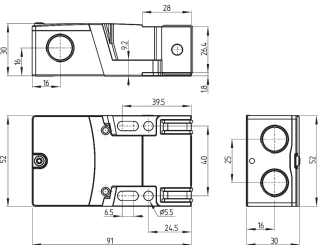
ID: krss1f03

| 1.4 MB | .jpg | 352.778 x 754.592 mm - 1000 x 2139 px - 72 dpi

| 105.1 kB | .png | 74.083 x 158.397 mm - 210 x 449 px - 72 dpi

| 44.8 kB | .jpg | 57.856 x 123.472 mm - 164 x 350 px - 72 dpi

### Dimensional drawing basic component



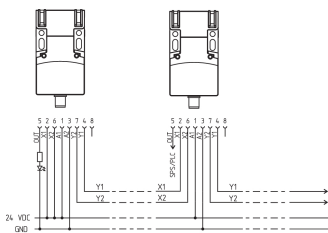
ID: krss1g01

| 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

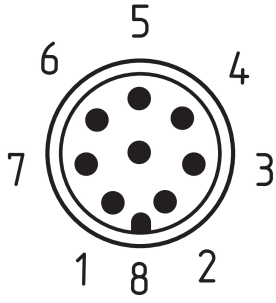
### Wiring example



ID: krss1l02

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

Schmersal India Pvt. Ltd., Plot No - G-7/1, Ranjangaon MIDC, Tal. - Shirur, Dist.- Pune 412 220

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.

Generated on: 22/08/2024, 2:13 pm