



## RSS16-I2-D-CC

- Repeated individual coding with RFID technology
- Coding level "High" according to ISO 14119
- Spring pulley connection
- Series-wiring unlimited
- without latching
- Repeated individual coding with RFID technology
- 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-CC |
| Article number (order number) | 103004351     |
| EAN (European Article Number) | 4030661456942 |
| 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<br>cULus<br>FCC<br>IC<br>UKCA<br>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

|                                                          |     |
|----------------------------------------------------------|-----|
| 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" $S_{ao}$  | 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          | 4 x M16 x 1,5                                                                                              |
| Termination          | Spring pulley connection                                                                                   |

### 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>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                                    |
| 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                      |

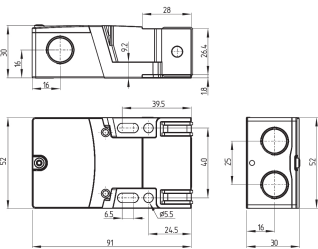
Pictures

Product picture (catalogue individual photo)



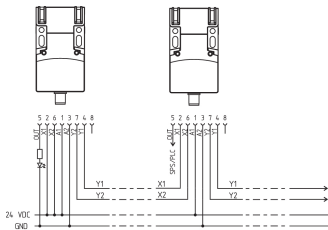
ID: krss1f08  
| 1.3 MB | .jpg | 352.778 x 745.772 mm - 1000 x 2114 px - 72 dpi  
| 97.9 kB | .png | 74.083 x 156.633 mm - 210 x 444 px - 72 dpi  
| 43.8 kB | .jpg | 58.561 x 123.472 mm - 166 x 350 px - 72 dpi

Dimensional drawing basic component



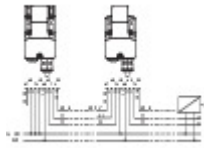
ID: krss1g01  
| 436.1 kB | .ai | 198.103 x 189.251 mm - 561 x 536 px - 72 dpi  
| 4.7 kB | .png | 74.083 x 56.444 mm - 210 x 160 px - 72 dpi  
| 141.1 kB | .jpg | 352.778 x 268.817 mm - 1000 x 762 px - 72 dpi

Wiring example



ID: krss1l02  
| 101.2 kB | .jpg | 352.778 x 247.297 mm - 1000 x 701 px - 72 dpi

## Wiring example



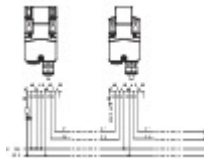
ID: krss1l05

| 3.3 kB | .jpg | 35.278 x 35.278 mm - 100 x 100 px - 72 dpi

| 3.9 kB | .png | 74.083 x 50.8 mm - 210 x 144 px - 72 dpi

| 120.9 kB | .jpg | 352.778 x 242.358 mm - 1000 x 687 px - 72 dpi

## Wiring example



ID: krss1lx2

| 3.0 kB | .jpg | 35.278 x 35.278 mm - 100 x 100 px - 72 dpi

| 3.9 kB | .png | 74.083 x 56.092 mm - 210 x 159 px - 72 dpi

| 117.7 kB | .jpg | 352.778 x 267.053 mm - 1000 x 757 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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