

Technical data sheet

Safety transponder

Part no.: 63002050

RD800-SSCA-CB2-R

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For illustration purposes only



Technical data

Basic data

| | |
|-------------|----------------|
| Series | RD800 |
| Application | Individual use |
| Code type | Standard code |

Characteristic parameters

| | |
|-----------------------------|---------------------------------------|
| SIL | Up to 3, IEC 61508 |
| SILCL | Up to 3, IEC/EN 62061 |
| Performance Level (PL) | Up to and including e, EN ISO 13849-1 |
| MTTF _d | 4,077 years, EN ISO 13849-1 |
| PFH _D | 1.45E-09 per hour |
| Mission time T _M | 20 years, EN ISO 13849-1 |
| Category | Up to and including 4, EN ISO 13849 |
| DC | High |

Electrical data

| | |
|-------------------------|---|
| Protective circuit | Cross circuit protection Short circuit protected |
| Pulse resistance | 1,500 V |
| Usage category at DC 12 | Ue 24 V, Ie 0.25 A, EN 60947-5-1 |

Performance data

| | |
|------------------------------------|--------------------------------|
| Supply voltage U _B | 24 V, DC, -15 ... 10 % |
| Current consumption, max. | 250 mA |
| Power consumption, max. | 1 W |
| Nominal current, min. | 0.5 mA |
| Overvoltage category | III |
| Fuse, external | 1 A |
| Fuse, internal | 0.75 A polyfuse (O1 + O2 + O3) |
| Rated insulation voltage | 32 V DC |
| Conventional thermal current, max. | 0.25 A |

Outputs

| | |
|--|------------|
| Number of safety-related switching outputs (OSSDs) | 2 Piece(s) |
| Number of digital switching outputs | 1 Piece(s) |
| Switching power, max. | 6 W |

Safety-related switching outputs

| | |
|---|--------------------------------------|
| Type | Safety-related switching output OSSD |
| Switching voltage, typ. | 24 V |
| Voltage type | DC |
| Test-pulse length, max. | 0.3 ms |
| Output current, max. | 250 mA |
| Capacitance, max. between an output and GND | 200 nF |
| Capacitance, max. between two outputs | 200 nF |

Safety-related switching output 1

| | |
|-------------------|-----------------|
| Switching element | Transistor, PNP |
|-------------------|-----------------|

Safety-related switching output 2

| | |
|-------------------|-----------------|
| Switching element | Transistor, PNP |
|-------------------|-----------------|

Switching outputs

| | |
|-------------------------|--------------------------|
| Type | Digital switching output |
| Switching voltage, typ. | 24 V |
| Voltage type | DC |
| Switching current, max. | 100 mA |

Switching output 1

| | |
|-------------------|-----------------|
| Switching element | Transistor, PNP |
| Function | Signal output |

Time behavior

| | |
|---|--------|
| Reaction time after removing the actuator, min. | 80 ms |
| Reaction time after removing the actuator, max. | 150 ms |
| Reaction time after shutdown, input, min. | 7 ms |
| Reaction time after shutdown, input, max. | 12 ms |

Connection

| | |
|-----------------------|------------|
| Number of connections | 1 Piece(s) |
|-----------------------|------------|

Connection 1

| | |
|----------------------|---|
| Function | Connection with PLC Signal OUT Voltage supply |
| Type of connection | Cable |
| Cable length | 2,000 mm |
| Connector | On right side |
| Sheathing material | PVC |
| Cable color | Black |
| Number of conductors | 5 -wire |

Cable properties

| | |
|----------------------------------|------|
| Length of connection cable, max. | 50 m |
|----------------------------------|------|

Mechanical data

| | |
|---|-----------------------|
| Design | Cubic |
| Dimension (W x H x L) | 25 mm x 18 mm x 72 mm |
| Housing material | Plastic |
| Plastic housing | PA 66 |
| Net weight | 150 g |
| Housing color | Black |
| Type of fastening | Through-hole mounting |
| Switching hysteresis, max. | 2.4 mm |
| Assured cut-out distance (Sar), min. | 16 mm |
| Assured cut-in distance (Sao), max. | 10 mm |
| Nominal switch-off distance, max. | 14 mm |
| Nominal operating distance, max. | 12 mm |
| Distance between two systems (sensor, actuator), min. | 50 mm |
| Repeatability, max. | 1.2 mm |
| Screw tightening torque | 1 N·m |

Operation and display

| | |
|-----------------|------------|
| Type of display | LED |
| Number of LEDs | 4 Piece(s) |

Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -25 ... 70 °C |
| Ambient temperature, storage | -25 ... 85 °C |
| Degree of contamination | 3, EN 60947-1 |

Technical data

Certifications

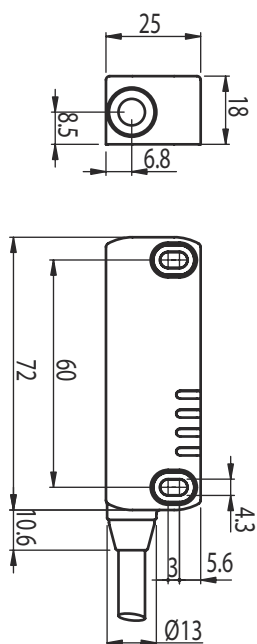
| | |
|--|---------------|
| Degree of protection | IP 67 |
| | IP 69K |
| Certifications | c UL US |
| | TÜV Süd |
| Test procedure for shock in accordance with standard | EN 60068-2-27 |
| Test procedure for vibration in accordance with standard | EN 60068-2-6 |

Classification

| | |
|-----------------------|----------|
| Customs tariff number | 85369095 |
| ECLASS 5.1.4 | 27272403 |
| ECLASS 8.0 | 27272403 |
| ECLASS 9.0 | 27272403 |
| ECLASS 10.0 | 27272403 |
| ECLASS 11.0 | 27272403 |
| ECLASS 12.0 | 27274601 |
| ECLASS 13.0 | 27274601 |
| ECLASS 14.0 | 27274601 |
| ETIM 5.0 | EC001829 |
| ETIM 6.0 | EC001829 |
| ETIM 7.0 | EC001829 |
| ETIM 8.0 | EC001829 |
| ETIM 9.0 | EC001829 |

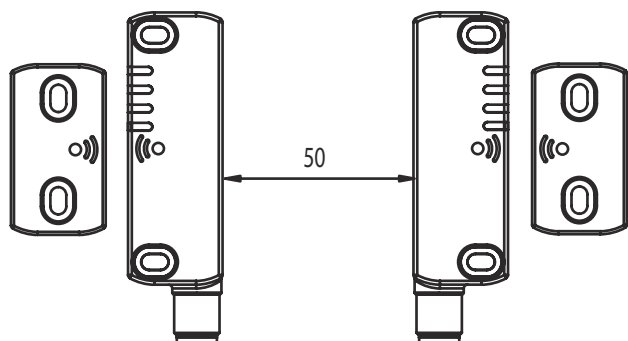
Dimensioned drawings

All dimensions in millimeters

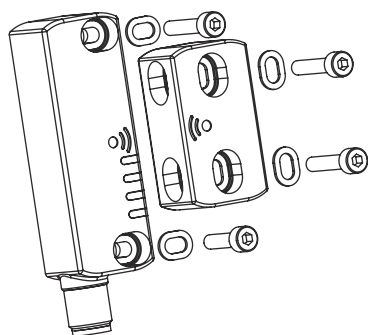


Dimensioned drawings

Minimum distance in mm



Fastening



Electrical connection

Connection 1

| | |
|-----------------------------|---|
| Function | Connection with PLC Signal OUT Voltage supply |
| Type of connection | Cable |
| Cable length | 2,000 mm |
| Connector | On right side |
| Sheathing material | PVC |
| Cable color | Black |
| Number of conductors | 5 -wire |

| Conductor color | Conductor assignment |
|-----------------|----------------------|
| Brown | A1 |
| Red / White | OS1 |
| Blue | A2 |
| Black / White | OS2 |
| Black | O3 |

Circuit diagrams

Internal circuit diagram



Diagrams

Safety-related distances



Diagrams

Approach directions



Notes



Observe intended use!



- ⌘ The product may only be put into operation by competent persons.
- ⌘ Only use the product in accordance with its intended use.