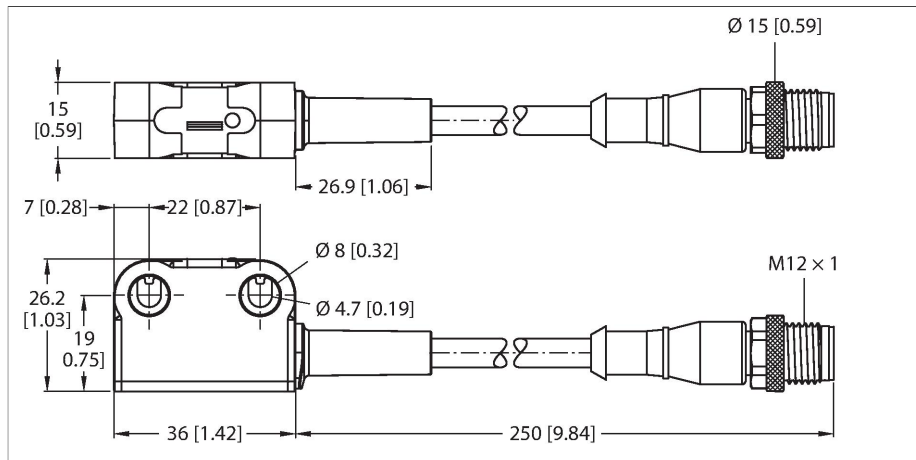


# SI-RFDL-LP8

## Safety Technology – RFID Safety Switch



### Technical data

|                                      |                                 |
|--------------------------------------|---------------------------------|
| Type                                 | SI-RFDL-LP8                     |
| ID no.                               | 3806401                         |
| Function                             | RFID safety switch              |
| Repeatability                        | 1.3 mm                          |
| Hysteresis                           | ≤ 2 mm                          |
| Range                                | 10...25 mm                      |
| With muting function                 | no                              |
| Operating voltage                    | 19.2...30 VDC                   |
| No-load current                      | ≤ 50 mA                         |
| Max. current safe output             | 100 mA                          |
| Short-circuit protection             | yes                             |
| Reverse polarity protection          | yes                             |
| Communication protocol               | ISD                             |
| Output function                      | 2 × OSSD, NO contacts, PNP      |
| Number of safe semiconductor outputs | 2                               |
| Rated insulation voltage             | 75 V                            |
| Impulse withstand voltage            | 500 kV                          |
| Protection class                     | III gemäß EN IEC 61558          |
| Switching frequency                  | ≤ 1 Hz                          |
| Readiness delay                      | ≤ 2 s                           |
| Response time typical                | < 100 ms                        |
| With restart interlock               | yes                             |
| Design                               | Rectangular, SI-RF              |
| Dimensions                           | 26 x 15 x 36 mm                 |
| Housing material                     | Plastic, Thermoplastic material |
| Cascadable                           | yes                             |



### Features

- Contactless safety sensor for cascading
- Coding type: low
- Reset: locked
- Diagnostics: detailed ISD (in-series diagnostic) diagnostic system for a complete status image (not safety-relevant)
- Operating status indicator (green/red)
- Switching output indicator (yellow)
- IP69K
- SIL 3 (IEC 61508)
- PL e (ISO 13849-1)
- Required for operating SI-RF-A actuators

### Functional principle

The safety sensors from the SI-RF product series use RFID technology to monitor doors, flaps and other moving mechanical guards that separate people and devices from hazardous situations. This contactless system meets the highest safety standards, is tamper-proof and offers diagnostic functions which make it easier to solve problems and minimize plant downtimes.

The low-code RFID safety sensors are easy to implement and offer the lowest level of tamper protection. An SI-RF sensor will detect any SI-RF actuator without being taught. Cascaded RFID safety sensors with in-series diagnostics (ISD) provide users with additional status-related and diagnostic information. These can be parameterized using the SI-RFA-DM1 diagnostics module.

Technical data

|                                      |                                            |
|--------------------------------------|--------------------------------------------|
| Electrical connection                | Cable with connector, M12 × 1, 0.25 m, PUR |
| Number of cores                      | 8                                          |
| Ambient temperature                  | -25...+70 °C                               |
| Storage temperature                  | -25...+70 °C                               |
| Relative humidity                    | 0...93 %                                   |
| Protection class                     | IP69K                                      |
| Power-on indication                  | LED, Green/Red                             |
| Switching state                      | LED, Yellow                                |
| Error indication                     | LED, red                                   |
| Tests/approvals                      |                                            |
| Vibration resistance                 | acc. to EN IEC 60947-5-2                   |
| Shock test                           | acc. to EN IEC 60947-5-2                   |
| PL acc. to DIN EN 13849-1:2008       | e                                          |
| Category acc. to DIN EN 13849-1:2008 | 4                                          |
| SIL according IEC 61508              | 3                                          |
| Useful Lifetime                      | 20 years                                   |
| Coding level/tamper protection       | Low                                        |

Accessories

SI-RFA-TK

3806410

Two-way junction box for RFID safety switches for connecting reset switches

SI-RFA-TS

3806409

Two-way junction box for RFID safety switches for connection in a cascade network

SI-RFA-P

3806411

Terminating resistor for RFID safety switch

Accessories

| Dimension drawing | Type    | ID no.  |                                 |
|-------------------|---------|---------|---------------------------------|
|                   | SI-RF-A | 3806408 | Actuator for RFID safety switch |

