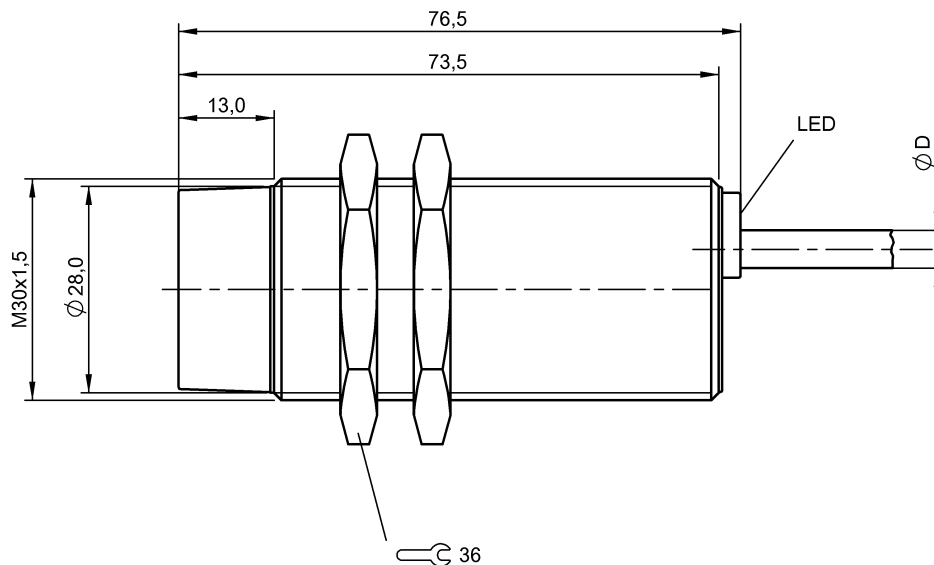




IND. CONT. EQ.  
81U2  
Class 2 Type 1



### Display/Operation

|                    |     |
|--------------------|-----|
| Function indicator | yes |
| Power indicator    | no  |

### Electrical connection

|                                   |                      |
|-----------------------------------|----------------------|
| Cable diameter D                  | 4.60 mm              |
| Cable length L                    | 2 m                  |
| Conductor cross-section           | 0.34 mm <sup>2</sup> |
| Connection type                   | Cable, 2.00 m, PVC   |
| Number of conductors              | 3                    |
| Polarity reversal protected       | yes                  |
| Protection against device mix-ups | yes                  |
| Short-circuit protection          | yes                  |

### Electrical data

|                                               |               |
|-----------------------------------------------|---------------|
| Load capacitance max. at U <sub>e</sub>       | 0.5 µF        |
| Min. operating current I <sub>m</sub>         | 0 mA          |
| No-load current I <sub>o</sub> max., damped   | 10 mA         |
| No-load current I <sub>o</sub> max., undamped | 3 mA          |
| Operating voltage U <sub>b</sub>              | 10...30 VDC   |
| Output resistance R <sub>a</sub>              | 33.0 kOhm + D |
| Rated insulation voltage U <sub>i</sub>       | 250 V AC      |
| Rated operating current I <sub>e</sub>        | 200 mA        |
| Rated operating voltage U <sub>e</sub> DC     | 24 V          |
| Rated short circuit current                   | 100 A         |
| Ready delay t <sub>v</sub> max.               | 20 ms         |
| Residual current I <sub>r</sub> max.          | 10 µA         |
| Ripple max. (% of U <sub>e</sub> )            | 15 %          |
| Switching frequency                           | 300 Hz        |
| Utilization category                          | DC -13        |
| Voltage drop static max.                      | 2.5 V         |

### Environmental conditions

|                         |                                 |
|-------------------------|---------------------------------|
| Ambient temperature     | -25...70 °C                     |
| Contamination scale     | 3                               |
| EN 60068-2-27, Shock    | Half-sinus, 30 gn, 11 ms        |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating               | IP67                            |

### Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 640 a |
|--------------|-------|

### General data

|                     |                            |
|---------------------|----------------------------|
| Approval/Conformity | CE<br>cULus<br>EAC<br>WEEE |
| Basic standard      | IEC 60947-5-2              |
| Trademark           | Global                     |

### Material

|                          |                    |
|--------------------------|--------------------|
| Housing material         | Brass              |
| Material jacket          | PVC                |
| Material sensing surface | PBT                |
| Surface protection       | Nickel-free coated |

### Mechanical data

|                   |                |
|-------------------|----------------|
| Dimension         | Ø 30 x 76.5 mm |
| Installation      | non-flush      |
| Size              | M30x1.5        |
| Tightening torque | 70 Nm          |

Output/Interface

Switching output                      PNP normally open (NO)

Range/Distance

|                                  |        |
|----------------------------------|--------|
| Assured operating distance Sa    | 24 mm  |
| Hysteresis H max. (% of Sr)      | 20.0 % |
| Rated operating distance Sn      | 30 mm  |
| Real switching distance sr       | 30 mm  |
| Repeat accuracy max. (% of Sr)   | 5.0 %  |
| Switching distance marking       | ■ ■    |
| Temperature drift max. (% of Sr) | 10 %   |
| Tolerance Sr                     | ±10 %  |

Remarks

The sensor is functional again after the overload has been eliminated.  
Not for flush mounting: See installation instructions for inductive sensors with extended range 939229.  
For further information about the MTTF and B10d see MTTF / B10d certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Wiring Diagrams

