



1) Sensing surface



Basic features

|                     |               |
|---------------------|---------------|
| Approval/Conformity | cULus         |
|                     | CE            |
|                     | UKCA          |
|                     | WEEE          |
| Basic standard      | IEC 60947-5-2 |

Display/Operation

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

Electrical connection

|                                   |                      |
|-----------------------------------|----------------------|
| Cable diameter D                  | 3.00 mm              |
| Cable length L                    | 1 m                  |
| Conductor cross-section           | 0.14 mm <sup>2</sup> |
| Connection type                   | Cable, 1.00 m, PUR   |
| 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>       | 1 µF        |
| Min. operating current I <sub>m</sub>         | 0 mA        |
| No-load current I <sub>o</sub> max., damped   | 6 mA        |
| No-load current I <sub>o</sub> max., undamped | 2 mA        |
| Operating voltage U <sub>b</sub>              | 10...30 VDC |
| Output resistance R <sub>a</sub>              | Open drain  |
| Rated insulation voltage U <sub>i</sub>       | 75 V DC     |
| Rated operating current I <sub>e</sub>        | 100 mA      |
| Rated operating voltage U <sub>e</sub> DC     | 24 V        |
| Rated short circuit current                   | 100 A       |
| Ready delay t <sub>v</sub> max.               | 21 ms       |
| Residual current I <sub>r</sub> max.          | 10 µA       |
| Ripple max. (% of U <sub>e</sub> )            | 10 %        |
| Switching frequency                           | 5000 Hz     |
| Utilization category                          | DC -13      |
| Voltage drop static max.                      | 2 V         |

Environmental conditions

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

Interface

|                  |                        |
|------------------|------------------------|
| Switching output | PNP normally open (NO) |
|------------------|------------------------|

Material

|                          |                 |
|--------------------------|-----------------|
| Housing material         | Stainless steel |
| Material jacket          | PUR             |
| Material sensing surface | PBT             |

Mechanical data

|                   |                    |
|-------------------|--------------------|
| Dimension         | Ø 5 x 27 mm        |
| Installation      | for flush mounting |
| Mounting length   | 26.00 mm           |
| Size              | M5x0.5             |
| Tightening torque | 1 Nm               |

Range/Distance

|                                  |         |
|----------------------------------|---------|
| Assured operating distance Sa    | 0.65 mm |
| Hysteresis H max. (% of Sr)      | 15.0 %  |
| Rated operating distance Sn      | 0.8 mm  |
| Real switching distance sr       | 0.8 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.

Wiring Diagrams (Schematic)

