



1) Sensing surface



Basic features

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

Display/Operation

| | |
|-----------------|----|
| Power indicator | no |
|-----------------|----|

Electrical connection

| | |
|-----------------------------------|----------------------|
| Cable diameter D | 4.65 mm |
| Cable length L | 5 m |
| Conductor cross-section | 0.34 mm ² |
| Connection type | Cable, 5.00 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 _e | 1 µF |
| Min. operating current I _m | 0 mA |
| No-load current I _o max., damped | 5 mA |
| No-load current I _o max., undamped | 2 mA |
| Operating voltage U _b | 10...30 VDC |
| Output resistance R _a | Open collector |
| Protection class | II |
| Rated insulation voltage U _i | 250 V AC |
| Rated operating current I _e | 200 mA |
| Rated operating voltage U _e DC | 24 V |
| Rated short circuit current | 100 A |
| Ready delay t _v max. | 21 ms |
| Residual current I _r max. | 30 µA |
| Ripple max. (% of U _e) | 15 % |
| Switching frequency | 3500 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 1.5 V |

Environmental conditions

| | |
|-------------------------|---------------------------------------|
| Ambient temperature | -25...70 °C |
| Contamination scale | 3 |
| EN 60068-2-27, Shock | Half-sinus, 30 g _n , 11 ms |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating | IP68, according to BWN Pr 20 |

Functional safety

| | |
|--------------|-------|
| MTTF (40 °C) | 850 a |
|--------------|-------|

Interface

Switching output PNP normally open (NO)

Material

Housing material Brass, Nickel-free coated
Material jacket PVC
Material sensing surface PBT

Range/Distance

Assured operating distance Sa 1.6 mm
Hysteresis H max. (% of Sr) 15.0 %
Rated operating distance Sn 2 mm
Real switching distance sr 2 mm
Repeat accuracy max. (% of Sr) 5.0 %
Temperature drift max. (% of Sr) 10 %
Tolerance Sr ± 10 %

Mechanical data

Dimension $\varnothing 12 \times 33$ mm
Installation for flush mounting
Mounting length 27 mm
Size M12x1
Tightening torque 10 Nm

Remarks

The sensor is functional again after the overload has been eliminated.

For more information about 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 (Schematic)

