



Basic features

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|---------------------|--|
| Additional features | Factor 1 weld-immune (magnetic field 100kA/m) |
| Approval/Conformity | CE UKCA WEEE cULus |
| Basic standard | IEC 60947-5-2 |
| Scope of delivery | No nuts or lockwashers |
| Trademark | Factor 1 |

Display/Operation

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

Electrical connection

| | |
|-----------------------------------|---------------------------|
| Connection | M8x1-Male, 3-pin, A-coded |
| Electrical version | 3-wire |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

Electrical data

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|---|---------------|
| Load capacitance max. at Ue | 1 μ F |
| Magnetic field strength, interference field | 100 kA/m |
| Min. operating current Im | 0 mA |
| No-load current Io max., damped | 15 mA |
| No-load current Io max., undamped | 10 mA |
| Operating voltage Ub | 10...30 VDC |
| Output resistance Ra | 33.0 kOhm + D |
| Protection class | II |
| Rated insulation voltage Ui | 250 V AC |
| Rated operating current Ie | 200 mA |
| Rated operating voltage Ue DC | 24 V |
| Rated short circuit current | 100 A |
| Ready delay tv max. | 2 ms |
| Residual current Ir max. | 80 μ A |
| Ripple max. (% of Ue) | 15 % |
| Switching frequency | 900 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 2 V |

Environmental conditions

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|-------------------------|---------------------------------------|
| 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 |
| Magnetic field immune | magnetic field immune (AC/DC) |

Functional safety

| | |
|--------------|---------|
| MTTF (40 °C) | 680.3 a |
|--------------|---------|

Interface

Switching output PNP normally open (NO)

Material

Housing material Brass, Nickel-free coated

Material sensing surface PBT

Mechanical data

Dimension Ø 8 x 60 mm

Installation for flush mounting

Mounting length 48.5 mm

Size M8x1

Tightening torque 2 Nm

Range/Distance

Assured operating distance Sa 1.2 mm

Hysteresis H max. (% of Sr) 15.0 %

Rated operating distance Sn 1.5 mm

Real switching distance sr 1.5 mm

Repeat accuracy max. (% of Sr) 5.0 %

Temperature drift max. (% of Sr) 10 %

Tolerance Sr ±10 %

Remarks

EMC: For operating conditions with noise sources

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.

Connector Drawings



Wiring Diagrams

