



1) Sensing surface, 2) LED yellow



Basic features

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

Display/Operation

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|--------------------|-----|
| Function indicator | yes |
|--------------------|-----|

Electrical connection

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

Electrical data

| | |
|---|-------------|
| Load capacitance max. at Ue | 0.1 µF |
| Min. operating current I _m | 0 mA |
| No-load current I _o max., damped | 10 mA |
| No-load current I _o max., undamped | 10 mA |
| Operating voltage U _b | 10...30 VDC |
| Pass-through speed max. | 20 m/s |
| Pulse lengthening | 150 ms |
| Rated operating current I _e | 200 mA |
| Rated operating voltage U _e DC | 24 V |
| Ready delay t _v max. | 20 ms |
| Residual current I _r max. | 10 µA |
| Ripple max. (% of U _e) | 10 % |
| Switching frequency | 10 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 g _n , 11 ms |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 1x5 min |
| IP rating | IP67 |

Functional safety

| | |
|--------------|-------|
| MTTF (40 °C) | 770 a |
|--------------|-------|

Interface

Switching output PNP normally open (NO)

Material

Housing material PA 6.6

Mechanical data

Dimension 78.5 x 17 x 11.9 mm

Target size min. M3x5 screw

Range/Distance

Hysteresis H max. (% of Sr) 15.0 %

Rated operating distance Sn 16 mm

Real switching distance sr 16 mm

Repeat accuracy max. (% of Sr) 10.0 %

Temperature drift max. (% of Sr) 10 %

Remarks

Sn value referenced to test plate made of steel ST37 16 mm x 16 mm.

Static detection of metallic parts

20 m/s at Sn=5 mm (screw M3x5)

3 m/s at Sn=10 mm (screw M3x5)

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

With connector, e.g. BKS-S 49-... total length = switch length +12 mm.

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 (Schematic)

