



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Connection	M12x1-Male
Polarity reversal protected	yes
Protection against device mix-ups	no
Short-circuit protection	yes

Electrical data

Min. operating current I_m	5 mA
Operating voltage U_b	20...250 VDC/20...250 VAC
Protection class	I
Rated insulation voltage U_i	250 V AC
Rated operating current I_e	130 mA
Rated operating voltage U_e AC	110 V
Rated short circuit current	100 A
Ready delay t_v max.	100 ms
Residual current I_r max.	1700 μ A
Switching frequency	1000 Hz
Utilization category	AC-140 DC -13
Voltage drop static max.	11 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
Protection degree	IP67

Functional safety

MTTF (40 °C)	245 a
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Material

Housing material	Stainless steel
Material sensing surface	PA 12

Mechanical data

Dimension	$\varnothing 12 \times 70$ mm
Installation	for flush mounting
Size	M12x1
Tightening torque	20 Nm

Output/Interface

Switching output	Normally open (NO)
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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 %

Remarks

With connector, e.g. BKS-S 28-... total length = switch length +20 mm.

$T_a \geq 25 \text{ °C} \dots \leq 70 \text{ °C}$: $I_e = 130 - 0.67 \times (T_a - 25)$

Flashing LED indicates overload. Once the overload has been eliminated, interrupt operating voltage V_s for approx. 2 sec.

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

