



1) Pressure resistant area



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1.0 μ F
Min. operating current I _m	0 mA
No-load current I _o max., damped	6 mA
No-load current I _o max., undamped	2 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	100.0 k Ω m
Rated insulation voltage U _i	75 V DC
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.	23 ms
Residual current I _r max.	10 μ A
Ripple max. (% of U _e)	10 %
Switching frequency	350 Hz
Utilization category	DC -13
Voltage drop static max.	2.0 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	IP67

Functional safety

MTTF (40 °C)	770 a
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Interface

Switching output PNP normally open (NO)

Material

Housing material Stainless steel, coated, PTFE
 Material sensing surface Stainless steel/coated/PTFE

Mechanical data

Dimension Ø 18 x 65 mm
 Installation for flush mounting
 Mounting length 49.00 mm
 Pressure rating max. 40 bar
 Pressure rating, note Pressure-resistant
 Size M18x1
 Tightening torque 25 Nm

Range/Distance

Assured operating distance Sa 4.9 mm
 Hysteresis H max. (% of Sr) 20.0 %
 Rated operating distance Sn 7.2 mm
 Real switching distance sr 7.2 mm
 Repeat accuracy max. (% of Sr) 5.0 %
 Switching distance marking ■■
 Temperature drift max. (% of Sr) 20 %
 Tolerance Sr ±15 %

Remarks

With connector, e.g. BKS-S 20-... total length = switch length +18 mm.

When installing in non-ferromagnetic metals, the distance x must be considered. This dimension x is described in the document "BES 2SN STEELFACE". Since the nuts supplied are made of non-ferromagnetic metal, the specified dimension x also applies here. Mounting, where the nuts are close to the active surface, is not intended.

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

Optical irregularities on the coating have no effect on function.

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)

