



### Basic features

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

### Display/Operation

Function indicator	yes
Power indicator	no

### Electrical connection

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

### Electrical data

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
Protection class	III
Rated insulation voltage $U_i$	60 V DC
Rated operating current $I_e$	100 mA
Rated operating voltage $U_e$ DC	24 V
Ready delay $t_v$ max.	300 ms
Residual current $I_r$ max.	100 $\mu$ A
Ripple max. (% of $U_e$ )	10 %
Switching frequency	100 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, 3x30 min
IP rating	IP67

### Functional safety

MTTF (40 °C)	1446 a
--------------	--------

### Interface

Switching output	PNP normally open (NO)
------------------	------------------------

## Material

Housing material	1.4404 stainless steel
Material sensing surface	1.4404 stainless steel

## Mechanical data

Dimension	Ø 8 x 50 mm
Installation	for flush mounting
Mounting length	38.5 mm
Pressure rating max.	50 bar
Size	M8x1
Tightening torque	5 Nm

## Range/Distance

Assured operating distance Sa	1.6 mm
Hysteresis H max. (% of Sr)	20 %
Rated operating distance Sn	2 mm
Real switching distance sr	2 mm
Repeat accuracy max. (% of Sr)	10 %
Switching distance marking	■ ■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

## Remarks

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

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.

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)

