



1) Sensing surface



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Cable diameter D	3.70 mm
Cable length L	0.2 m
Connection	M8x1-Male, 3-pin
Connection type	Cable with connector, 0.20 m, PUR
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	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	3 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm + D
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.	50 ms
Residual current I _r max.	80 µA
Ripple max. (% of U _e)	15 %
Switching frequency	2500 Hz
Utilization category	DC -13
Voltage drop static max.	2 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	IP65

Functional safety

MTTF (40 °C)	830 a
--------------	-------

Inductive Sensors
BES 517-398-NO-C-S49-00,2
Order Code: BES01NA

BALLUFF

Interface

Switching output PNP normally open (NO)

Material

Housing material PBT, GF20
Material jacket PUR
Material sensing surface PBT, GF20

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 %

Mechanical data

Dimension 30 x 10.5 x 16.5 mm
Installation for flush mounting
Size 30x10.5x16.5

Remarks

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

