



1) Sensing surface



Basic features

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

Display/Operation

Function indicator	no
Power indicator	no

Electrical connection

Cable diameter D	3.00 mm
Cable length L	2 m
Conductor cross-section	0.14 mm ²
Connection type	Cable, 2.00 m, PUR
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at U _e	0.2 µF
Min. operating current I _m	1 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	Open collector
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	100 mA
Rated operating voltage U _e DC	24 V
Rated short circuit current	100 A
Ready delay t _v max.	25 ms
Residual current I _r max.	80 µA
Ripple max. (% of U _e)	10 %
Switching frequency	3000 Hz
Utilization category	DC -13
Voltage drop static max.	3 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)	830 a
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Inductive Sensors
BES M05ED-PSD08B-BP02-R03
Order Code: BES03L7

BALLUFF

Interface

Switching output PNP normally open (NO)

Material

Housing material Stainless steel
Material jacket PUR
Material sensing surface Ceramic

Range/Distance

Assured operating distance Sa 0.65 mm
Hysteresis H max. (% of Sr) 15.0 %
Rated operating distance Sn 0.8 mm
Real switching distance sr 0.8 mm
Repeat accuracy max. (% of Sr) 5.0 %
Temperature drift max. (% of Sr) 10 %
Tolerance Sr -10 %/+40 %

Mechanical data

Dimension Ø 5 x 27 mm
Installation for flush mounting
Pressure rating max. 100 bar
Pressure rating, note oil pressure rated
Sealing ring, size 10.4 x 3.5 mm
Size M5x0.5
Tightening torque 1 Nm ±10 %

Remarks

The sensor is functional again after the overload has been eliminated.
Installation Instructions 868058
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.

Wiring Diagrams

