



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	2.50 mm
Cable length L	2 m
Conductor cross-section	0.10 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	0.5 µF
Min. operating current I _m	10 mA
No-load current I _o max., damped	10 mA
No-load current I _o max., undamped	7 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.	20 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	10 %
Switching frequency	4000 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-25...80 °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	IP68

Functional safety

MTTF (40 °C)	735 a
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Inductive Sensors
BHS A407N-PSD15-BP02
Order Code: BHS0058

BALLUFF

Interface

Switching output PNP normally open (NO)

Material

Gasket, material NBR 70
Housing material Stainless steel
Material jacket PUR
Material sensing surface Ceramic
Support ring material PTFE

Mechanical data

Dimension $\varnothing 6.5 \times 31.3$ mm
Installation for flush mounting
Mounting part M8x1
Pressure rating max. 500 bar
Pressure rating, note oil pressure rated
Sealing ring, size 4×1.5 mm
Size D6.5
Tightening torque 7 Nm ± 10 %

Range/Distance

Assured operating distance Sa 1.2 mm
Hysteresis H max. (% of Sr) 15.0 %
Rated operating distance Sn 1.5 mm
Real switching distance sr 1.5 mm
Repeat accuracy max. (% of Sr) 5.0 %
Temperature drift max. (% of Sr) 10 %
Tolerance Sr ± 10 %

Remarks

The sensor is functional again after the overload has been eliminated.
Installation Instructions 861458
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

