



1) Sensing surface



### Basic features

Approval/Conformity	CE cULus EAC WEEE
Basic standard	IEC 60947-5-2
Thrust ring, part number	154150

### 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 <sup>2</sup>
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 <sub>e</sub>	0.5 µF
Min. operating current I <sub>m</sub>	10 mA
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	7 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	Open collector
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	100 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Rated short circuit current	100 A
Ready delay t <sub>v</sub> max.	20 ms
Residual current I <sub>r</sub> max.	10 µA
Ripple max. (% of U <sub>e</sub> )	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 gn, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
Protection degree	IP68

### Functional safety

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

**BALLUFF**

**Material**

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

**Mechanical data**

Dimension	Ø 6.5 x 31.3 mm
Installation	for flush mounting
Mounting	M8x1
Pressure rating max.	500 bar
Pressure rating, note	oil pressure rated
Sealing ring, part number	154149
Sealing ring, size	4 × 1.5 mm
Size	D6.5
Tightening torque	7 Nm ±10 %

**Output/Interface**

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

