



1) O-Ring with thrust ring



### Basic features

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

### Display/Operation

Function indicator	no
Power indicator	no

### Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

Load capacitance max. at $U_e$	0.5 $\mu$ F
Min. operating current $I_m$	0 mA
No-load current $I_o$ max., damped	8 mA
No-load current $I_o$ max., undamped	8 mA
Operating voltage $U_b$	10...30 VDC
Output resistance $R_a$	33.0 kOhm + 2D
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.	20 ms
Residual current $I_r$ max.	10 $\mu$ A
Ripple max. (% of $U_e$ )	15 %
Switching frequency	400 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

### Environmental conditions

Ambient temperature	-25...120 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP68

### Functional safety

MTTF (40 °C)	500 a
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Inductive Sensors  
**BHS B249V-PSD15-S04**  
**Order Code: BHS005Y**



**Interface**

Switching output PNP normally open (NO)

**Material**

Housing material Stainless steel  
 Material sensing surface Ceramic  
 Support ring material PTFE

**Range/Distance**

Assured operating distance Sa 1.21 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) 15 %  
 Tolerance Sr ±10 %

**Mechanical data**

Dimension Ø 12 x 56 mm  
 Installation for flush mounting  
 Mounting part M12x1  
 Pressure rating max. 500 bar  
 Pressure rating, note oil pressure rated  
 Sealing ring, size 6.75 x 1.78 mm  
 Size M12x1  
 Tightening torque 15 Nm ±10 %

**Remarks**

The sensor is functional again after the overload has been eliminated.  
 Installation Instructions 614804  
 $I_e [mA] = 200 - 2.2 \times (T_a - 75)$  at  $T_a [^{\circ}C] + 75 \dots + 120$   
 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**

