



1) O-Ring with thrust ring



### Basic features

Approval/Conformity	CE UKCA cULus WEEE
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### Electrical connection

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

### Electrical data

Load capacitance max. at Ue	0.5 µF
No-load current I <sub>o</sub> max., damped	8 mA
No-load current I <sub>o</sub> max., undamped	8 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	33.0 kOhm + 2D
Ready delay t <sub>v</sub> max.	20 ms
Residual current I <sub>r</sub> max.	10 µA
Switching frequency	400 Hz
Voltage drop static max.	2.5 V

### Environmental conditions

Ambient temperature	-25...80 °C
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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### Interface

Switching output	PNP normally open (NO)
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### Material

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

### Mechanical data

Dimension	Ø 12 x 78 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
Tightening torque	15 Nm ±10 %

### Range/Distance

Assured operating distance S <sub>a</sub>	1.21 mm
Rated operating distance S <sub>n</sub>	1.5 mm
Real switching distance s <sub>r</sub>	1.5 mm
Temperature drift max. (% of S <sub>r</sub> )	15 %

## Remarks

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

Installation Instructions 614804

$I_e \text{ [mA]} = 200 - 2.2 \times (T_a - 75)$  at  $T_a \text{ [}^\circ\text{C]} + 75 \dots + 120$

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

