



1) O-Ring with thrust ring



Basic features

Approval/Conformity	CE UKCA WEEE
Base type deviation	PNP/normally closed
Basic standard	IEC 60947-5-2

Display/Operation

Function indicator	no
Power indicator	no

Electrical connection

Cable diameter D	4.60 mm
Cable length L	5 m
Conductor cross-section	0.34 mm ²
Connection	M12x1-Male, 4-pin, A-coded
Connection type	Connector, 5.00 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	0 mA
No-load current I _o max., damped	1 mA
No-load current I _o max., undamped	10 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm + D
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.	10 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	15 %
Switching frequency	1000 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 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)	720 a
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Interface

Switching output PNP normally closed (NC)

Material

Housing material 1.4104 stainless steel
 Material jacket PUR
 Material sensing surface EP
 Support ring material PTFE

Mechanical data

Dimension $\varnothing 16 \times 73$ mm
 Installation for flush mounting
 Mounting length 32.00 mm
 Mounting part M16x1
 Pressure rating max. 350 bar
 Pressure rating, note oil pressure rated
 Sealing ring, size 11×1.5 mm
 Size M16x1
 Tightening torque $40 \text{ Nm} \pm 10 \%$

Range/Distance

Assured operating distance S_a 1.2 mm
 Hysteresis H max. (% of S_r) 15.0 %
 Rated operating distance S_n 1.5 mm
 Real switching distance s_r 1.5 mm
 Repeat accuracy max. (% of S_r) 5.0 %
 Temperature drift max. (% of S_r) 10 %
 Tolerance S_r $\pm 10 \%$

Remarks

Installation Instructions 614804

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

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 (Schematic)

