



1) O-Ring with thrust ring



### Basic features

Approval/Conformity	CE
	UKCA
	CCC Ex
	IECEX
	ATEX
Base type deviation	WEEE
	Pin assignment
Basic standard	EN 60079-0
	EN 60079-11
	IEC 60079-0
	IEC 60079-11
	IEC 60947-5-6
Ex marking	ATEX: EX II 2G Ex ia IIC T6 Gb
	IECEX: EX ia IIC T6 Gb

### Electrical data

Current consumption max., damped	1 mA
Current consumption min., undamped	4 mA
Internal capacitance Ci max.	30 nF
Internal inductance Li max.	0.5 nH
Operating voltage Ub	7.7...9 VDC
Permiss. series resistance Rv	550...1100 Ohm
Rated insulation voltage Ui	75 V DC
Rated operating voltage Ue DC	8.2 V
Rated series resistance Rv	1000 Ohm
Ready delay tv max.	10 ms
Switching frequency	1000 Hz
Utilization category	DC -12

### Display/Operation

Function indicator	no
Power indicator	no

### Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	to 9 V

### Environmental conditions

Ambient temperature	-25...70 °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
IP rating	IP68

### Functional safety

MTTF (40 °C)	9720 a
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### Interface

Interface	NAMUR
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## Material

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

## Range/Distance

Assured operating distance Sa	1.1 mm
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 %/20 %
Tolerance Sr	-20 %

## Mechanical data

Dimension	Ø 12 x 56 mm
Installation	for flush mounting
Mounting length	21.60 mm
Mounting part	M12x1
Pressure rating max.	500 bar
Pressure rating, note	oil pressure rated
Sealing ring, size	5.85 x 2.4 mm
Size	M12x1
Tightening torque	15 Nm ±10 %

## Remarks

Use only in approved intrinsically safe circuits with max. values  $U_i = 15\text{ V}$ ,  $I_i = 50\text{ mA}$ ,  $P_i = 120\text{ mW}$ .  
 Effective operating distance measured at 1.55 mA.  
 The operating guide document number 897278 must be observed.  
 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)

