



Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Connection	M12x1-Male, 4-pole, 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 _o undamped max.	3 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm + D
Polarity reversal protected	yes
Protection class	II
Rated insulation voltage U _i	250 V AC
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.	21 ms
Repeat accuracy max. (% of S _r)	5.0 %
Residual current I _r max.	10 µA
Residual ripple max. (% of U _e)	15 %
Switching frequency	5000 Hz
Utilization category	DC-13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-40...85 °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)

640 a

General data

Approval/Conformity

cULus
 CE
 EAC

Basic standard

IEC 60947-5-2

Material

Housing material

Stainless steel (1.4304)
 Stainless steel

Material sensing surface

LCP

Mechanical data

Dimension

Ø 12 x 70 mm

Installation

flush

Size

M12x1

Tightening torque

12 Nm

Output/Interface

Switching output

PNP normally open (NO)

Range/Distance

Assured operating distance S_a

1.6 mm

Effective operating distance S_r

2 mm

Hysteresis H max. (% of S_r)

15.0 %

Rated operating distance S_n 2 mm
Temperature drift max. (% of S_r) 10 %

For further information about the 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.

Remarks

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

Connector view



Wiring Diagram

