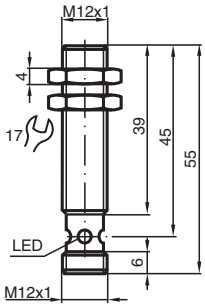


Inductive sensor

NCB2-12GM40-Z0-V1-3G-3D

- 2 mm flush
- ATEX-/IECEx-approvals for zone 2/22 (Ex ec/tc)

Dimensions



Technical Data

General specifications		
Switching function		Normally open (NO)
Output type		Two-wire
Rated operating distance	s_n	2 mm
Installation		flush
Output polarity		DC
Assured operating distance	s_a	0 ... 1.62 mm
Actual operating distance	s_r	1.8 ... 2.2 mm typ.
Reduction factor r_{Al}		0.28
Reduction factor r_{Cu}		0.23
Reduction factor r_{304}		0.7
Output type		2-wire
Nominal ratings		
Operating voltage	U_B	5 ... 60 V DC
Switching frequency	f	0 ... 800 Hz
Hysteresis	H	1 ... 10 typ. 5 %
Reverse polarity protection		reverse polarity tolerant

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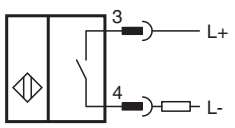
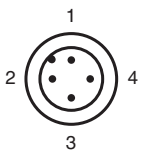
Technical Data

Short-circuit protection		pulsing
Voltage drop	U_d	≤ 5 V
Operating current	I_L	2 ... 100 mA
Lowest operating current	I_m	2 mA
Off-state current	I_r	0 ... 0.5 mA typ.
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
$MTTF_d$		2090 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Approvals and certificates		
IECEx approval		
Equipment protection level Gc (ec)		IECEx TUR 21.0017X
Equipment protection level Dc (tc)		IECEx TUR 21.0018X
ATEX approval		
Equipment protection level Gc (ec)		TÜV 20 ATEX 8523 X
Equipment protection level Dc (tc)		TÜV 20 ATEX 8524 X
UL approval		cULus Listed, General Purpose
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP67
Dimensions		
Length		40 mm
Diameter		12 mm
General information		
Use in the hazardous area		see instruction manuals

Connection



Connection Assignment



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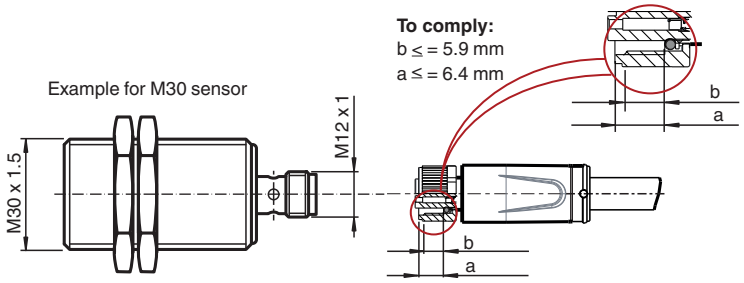
Connection Assignment

Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Installation

Requirement for male cordset to achieve IP degree of protection



b = max. distance from start of thread to seal
a = max. distance from start of union nut to seal

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