

Inductive sensor

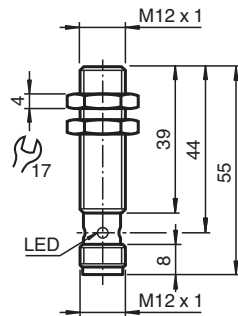
NBB2-12GS40-Z4L-V1-3G-3D



- 2 mm flush
- 2-wire DC sensor with minimum off-state current
- Switching status indicator, yellow LED
- ATEX-/IECEX-approvals for zone 2/22 (Ex ec/tc)
- Stainless steel housing



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		Two-wire with minimum off-state current
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_{AI}		0.3
Reduction factor r_{Cu}		0.17
Reduction factor r_{304}		0.7
Output type		2-wire

Nominal ratings

Operating voltage	U_B	4 ... 30 V
Switching frequency	f	0 ... 700 Hz
Hysteresis	H	1 ... 10 typ. 5 %
Reverse polarity protection		yes

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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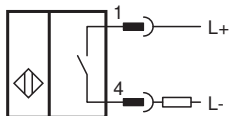
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Technical Data

Short-circuit protection		pulsing
Voltage drop	U_d	$\leq 4 \text{ V}$
Operating current	I_L	2 ... 30 mA
Lowest operating current	I_m	2 mA
Off-state current	I_r	$\leq 200 \mu\text{A}$
Switching state indicator		Multihole-LED, yellow
Functional safety related parameters		
MTTF _d		1558 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
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, Class 2 Power Source
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °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
Mass		23 g
General information		
Scope of delivery		2 self locking nuts in scope of delivery

Connection



Connection Assignment

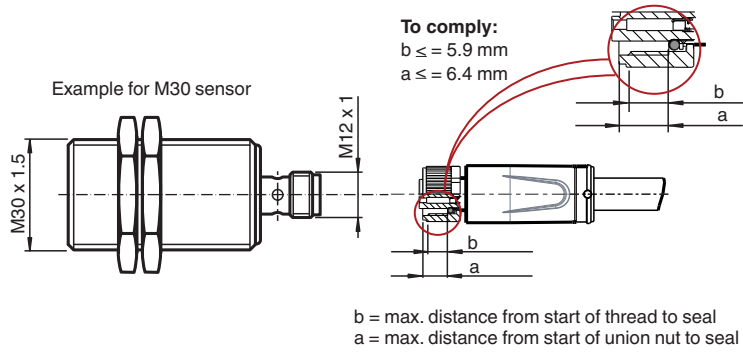


Wire colors in accordance with EN 60947-5-2


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

Installation

Requirement for male cordset to achieve IP degree of protection



Accessories

	BF 12	Mounting flange, 12 mm
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