

# Inductive sensor

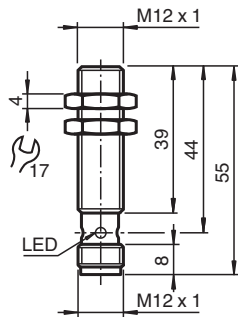
## NBB2-12GS40-Z4L-V1-3G-3D



- 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".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

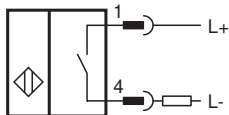
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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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
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1558 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
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
<b>Approvals and certificates</b>		
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
KCC approval		
Hazardous Location		23-AV4BO-0236X
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
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
<b>General information</b>		
Scope of delivery		2 self locking nuts in scope of delivery

## Connection



## Connection Assignment

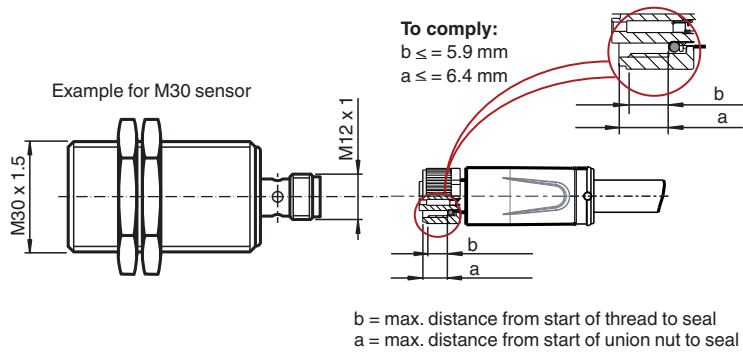


Wire colors in accordance with EN 60947-5-2

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

## Installation

### Requirement for male cordset to achieve IP degree of protection



## Accessories

	<b>BF 12</b>	Mounting flange, 12 mm
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