

# Inductive sensor

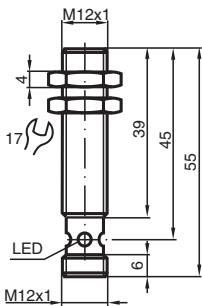
## NBB2-12GM40-Z0-V1



- 2 mm flush
- Extended temperature range
- 2-wire DC



### 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 ( -25 ... 70 °C (-13 ... 158 °F) ) 0 ... 1.52 mm ( -40 ... -25 °C (-40 ... -13 °F) )
Actual operating distance	$s_r$	1.8 ... 2.2 mm typ.
Reduction factor $r_{Al}$		0.18
Reduction factor $r_{Cu}$		0.12
Reduction factor $r_{304}$		0.67
Output type		2-wire
Nominal ratings		
Operating voltage	$U_B$	5 ... 60 V
Switching frequency	$f$	0 ... 1000 Hz
Hysteresis	$H$	1 ... 10 typ. 5 %

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

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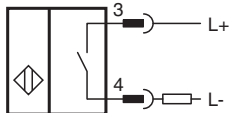
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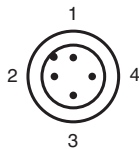
## Technical Data

Reverse polarity protection		reverse polarity tolerant
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 5$ 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.
Time delay before availability	$t_v$	$\leq$
Switching state indicator		Multihole-LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		2250 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 IEC 60947-5-2:2007
<b>Approvals and certificates</b>		
UL approval		cULus Listed, General Purpose
CCC approval		Certified by China Compulsory Certification (CCC)
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 70 °C (-40 ... 158 °F)
<b>Mechanical specifications</b>		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		brass, nickel-plated
Sensing face		PBT
Degree of protection		IP67

## Connection



## Connection Assignment



Wire colors in accordance with EN 60947-5-2

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