

# Inductive sensor

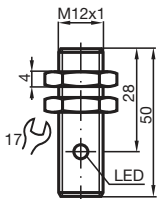
## NJ2-12GM40-E2-V1



■ 2 mm flush



### Dimensions



### Technical Data

#### General specifications

Switching function		Normally open (NO)
Output type		PNP
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 $r_{Al}$		0.23
Reduction factor $r_{Cu}$		0.21
Reduction factor $r_{304}$		0.7
Output type		3-wire

#### Nominal ratings

Operating voltage	$U_B$	10 ... 60 V
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Release date: 2022-06-30 Date of issue: 2022-06-30 Filename: 282942\_eng.pdf

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

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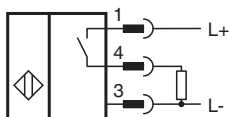
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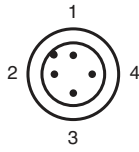
## Technical Data

Switching frequency	f	0 ... 3000 Hz
Hysteresis	H	1 ... 10 typ. 3 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Voltage drop at $I_L$		
Voltage drop $I_L = 100$ mA, switching element on	$U_d$	1.2 ... 2.5 V
Operating current	$I_L$	0 ... 200 mA
Off-state current	$I_r$	$\leq 0.5$ mA
No-load supply current	$I_0$	$\leq 9$ mA
Time delay before availability	$t_v$	$\leq 20$ ms
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		750 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
CSA approval		cCSAus Listed, General Purpose
CCC approval		Certified by China Compulsory Certification (CCC)
<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
<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)

## Accessories

	<b>BF 12</b>	Mounting flange, 12 mm
	<b>V1-G-2M-PUR</b>	Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey
	<b>V1-W-2M-PUR</b>	Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey

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