Inductive sensor

NJ2-12GK-SN-0,3M
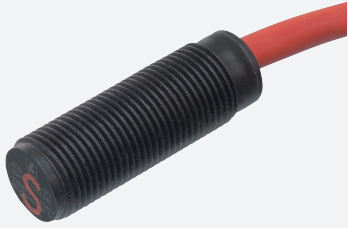
- 2 mm flush
- Usable up to SIL 3 acc. to IEC 61508

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CE CSA c US FM APPROVED c UL US

Dimensions

M12 x 1
4.4
30.5
35
17
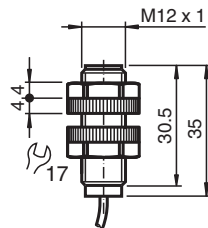
Technical Data

General specifications		
Switching function		Normally closed (NC)
Output type		NAMUR with safety function
Rated operating distance	s_n	2 mm
Installation		flush
Assured operating distance	s_a	0 ... 1.62 mm
Reduction factor r_{Al}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.85
Safety Integrity Level (SIL)		up to SIL3 acc. to IEC 61508 **Danger!** In safety-related applications the sensor must be operated with a qualified fail safe interface from Pepperl+Fuchs, such as KFD2-SH-EX1. Consider the "exida Functional Safety Assessment" document which is available on www.pepperl-fuchs.com as an integral part of this product's documentation.
Output type		2-wire
Nominal ratings		
Nominal voltage	U_o	8 V DC
Operating voltage	U_B	5 ... 25 V [1]

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
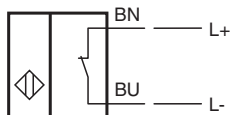Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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Technical Data

Switching frequency	f	0 ... 2000 Hz
Suitable for 2:1 technology		yes , with reverse polarity protection diode
Current consumption		
Measuring plate not detected		≥ 3 mA at nominal voltage
Measuring plate detected		≤ 1 mA at nominal voltage
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 3
$MTTF_d$		7660 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
NAMUR		EN 60947-5-6:2000 IEC 60947-5-6:1999
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		
FM approval		
Control drawing		116-0165
UL approval		cULus Listed, General Purpose
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0454
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		cable silicone , 0.3 m
Core cross-section		0.34 mm^2
Housing material		PP
Sensing face		PP
Degree of protection		IP68
Cable		
Cable diameter		4.8 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
General information		
Use in the hazardous area		see instruction manuals

Connection

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Accessories

	BF 12	Mounting flange, 12 mm
	EXG-12	Quick mounting bracket with dead stop

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

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Application

Danger!
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