

Inductive sensor

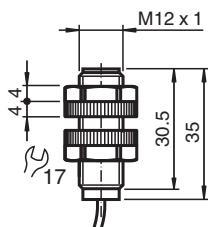
NJ2-12GK-SN-0,3M



- 2 mm flush
- Usable up to SIL 3 acc. to IEC 61508



Dimensions



Technical Data

Release date: 2024-05-29 Date of issue: 2024-06-02 Filename: 70133165_eng.pdf

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_{AI}		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	8.2 V (R_i approx. 1 k Ω)
Operating voltage	U_B	5 ... 25 V ¹⁾
Switching frequency	f	0 ... 2000 Hz

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

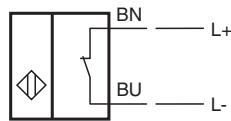
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

 PEPPERL+FUCHS

Technical Data

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 IEC 60947-5-2	
Approvals and certificates		
IECEx approval		
Equipment protection level Ga	IECEx PTB 11.0092X	
Equipment protection level Gb	IECEx PTB 11.0092X	
Equipment protection level Da	IECEx PTB 11.0092X	
Equipment protection level Mb	IECEx PTB 11.0092X	
ATEX approval		
Equipment protection level Ga	PTB 00 ATEX 2049 X	
Equipment protection level Gb	PTB 00 ATEX 2049 X	
Equipment protection level Da	PTB 00 ATEX 2049 X	
UL approval	cULus Listed, General Purpose	
Ordinary Location	E87056	
Hazardous Location	E501628	
Control drawing	116-0454	
CCC approval		
Hazardous Location	2020322315002308	
NEPSI approval		
NEPSI certificate	GYJ16.1392X	
Ambient conditions		
Ambient temperature	-40 ... 100 °C (-40 ... 212 °F)	
Mechanical specifications		
Connection type	cable	
Housing material	PP	
Sensing face	PP	
Degree of protection	IP68	
Cable		
Cable diameter	4.8 mm \pm 0.2 mm	
Bending radius	> 10 x cable diameter	
Material	silicone	
Core cross section	0.34 mm ²	
Length	L	0.3 m
Dimensions		
Length	34 mm	
Diameter	12 mm	
General information		
Use in the hazardous area	see instruction manuals	

Connection



Application

Danger!

In safety-related applications the sensor must be operated with a qualified fail safe interface from Pepperl+Fuchs, such as KFD2-SH-EX1.

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