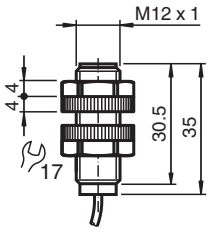


Inductive sensor

NJ2-12GK-SN-0,3M-Y70180397

- 2 mm flush
- Usable up to SIL 3 acc. to IEC 61508
- Degree of protection IP68
- ATEX-/IECEx-approvals for zone 0/1/20/21 (Ex i)
- ATEX-/IECEx-approvals for zone 2/22 (Ex ec/tc)

Dimensions



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	8.2 V (R_i approx. 1 kΩ)
Switching frequency	f	0 ... 2000 Hz
Suitable for 2:1 technology		yes , with reverse polarity protection diode

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Technical Data

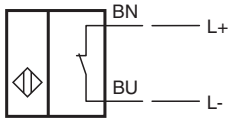
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 3
$MTTF_d$		10660 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
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 Gc (ec)		IECEx TUR 21.0017X
Equipment protection level Da		IECEx PTB 11.0092X
Equipment protection level Dc (tc)		IECEx TUR 21.0018X
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 Gc (ec)		TÜV 20 ATEX 8523 X
Equipment protection level Da		PTB 00 ATEX 2049 X
Equipment protection level Dc (tc)		TÜV 20 ATEX 8524 X
UL approval		cURus Recognized Load Type: General Purpose Circuitry: Class 2 Power Source Supply/Switching Voltage: 8.2 V DC Further UL information see section "Additional Information"
Ordinary Location		E87056
Control drawing		116-0454
CCC approval		
Hazardous Location		2020322315002308 2024322315005947 2024322315005860
TIIS approval		on request
Ambient conditions		
Ambient temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		cable
Housing material		Crastin (PBT), black
Sensing face		Crastin (PBT), black
Degree of protection		IP68
Cable		
Wire end ferrules		yes
Cable diameter		4.8 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Material		silicone
Color		blue
Number of cores		2
Core cross section		0.34 mm^2
Length	L	0.3 m
Dimensions		

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Technical Data

Length		34 mm
Diameter		12 mm
General information		
Use in the hazardous area		see instruction manuals

Connection Assignment



Additional Information

Additional UL Information
Conditions of Acceptability:
Suitability of the mounting means shall be determined in the end use application. The suitability of connection between supply connection and the end connector shall be determined in the end-use application.
The supply connections for these devices are intended for factory wiring only.
These devices shall be used within their recognized electrical ratings.
These proximity switches are intended to be powered by Listed Class 2 power supply or are located in a limited voltage / limited current circuit.

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Application



Danger!
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