

Inductive sensor

NJ2-11-SN



- 2 mm flush
- Usable up to SIL 3 acc. to IEC 61508
- ATEX approval Ex-i and Ex-nA/tc for zone 0-2 and zone 20-22
- Degree of protection IP68



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_{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

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

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Technical Data

Nominal ratings

Nominal voltage	U_o	8.2 V
Switching frequency	f	0 ... 3000 Hz
Suitable for 2:1 technology		yes , with reverse polarity protection diode
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 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
CCC approval		CCC approval / marking not required for products rated ≤ 36 V

Ambient conditions

Ambient temperature		-40 ... 100 °C (-40 ... 212 °F)
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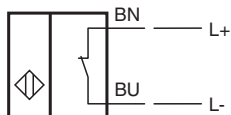
Mechanical specifications

Connection type		cable silicone , 2 m
Core cross-section		0.34 mm ²
Housing material		Valox (PBT) , black
Sensing face		Valox (PBT) , black
Degree of protection		IP68
Cable		
Bending radius		> 10 x cable diameter


General information

Use in the hazardous area		see instruction manuals
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Connection



Accessories

	BF 11	Mounting flange, 11 mm
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Application

**Danger!**

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