

# Inductive sensor

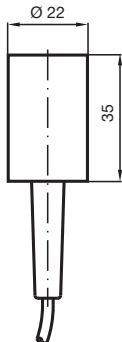
## NJ6-22-SN



- 6 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	$s_n$	6 mm
Installation		flush
Assured operating distance	$s_a$	0 ... 4.86 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 <b>Danger!</b> 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 <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> 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 ... 2000 Hz
Suitable for 2:1 technology		yes , with reverse polarity protection diode
Current consumption		
Measuring plate not detected		$\geq 3$ mA
Measuring plate detected		$\leq 1$ mA

### Functional safety related parameters

Safety Integrity Level (SIL)		SIL 3
MTTF <sub>d</sub>		11850 a
Mission Time (T <sub>M</sub> )		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 $\leq 36$ V

### Ambient conditions

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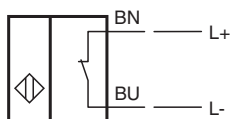
### Mechanical specifications

Connection type		cable silicone , 2 m
Core cross-section		0.75 mm <sup>2</sup>
Housing material		Valox (PBT) , green
Sensing face		Valox (PBT) , green
Degree of protection		IP68
Cable		
Cable diameter		6 mm $\pm$ 0.2 mm
Bending radius		> 10 x cable diameter

### General information

Use in the hazardous area		see instruction manuals
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## 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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