

# Inductive sensor

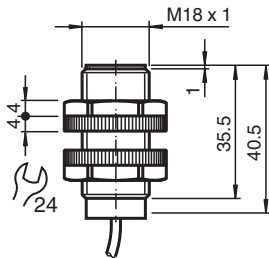
## NJ3-18GK-S1N



- Nonferrous targets
- 3 mm flush in ST37 / 1.0037
- 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 open (NO)
Output type		NAMUR with safety function
Rated operating distance	$s_n$	3 mm
Installation		flush in mild steel
Assured operating distance	$s_a$	0 ... 2.4 mm
Actual operating distance	$s_r$	2.7 ... 3.3 mm typ.
Reduction factor $r_{Al}$		1
Reduction factor $r_{Cu}$		1
Reduction factor $r_{304}$		0
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
Nominal ratings		
Nominal voltage	$U_o$	8.2 V

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

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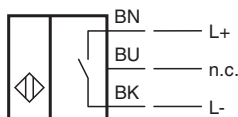
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**PEPPERL+FUCHS**


## Technical Data

Switching frequency	f	0 ... 200 Hz
Suitable for 2:1 technology		yes , Reverse polarity protection diode not required
Current consumption		
Measuring plate not detected		≤ 1 mA
Measuring plate detected		≥ 3 mA
<b>Functional safety related parameters</b>		
Safety Integrity Level (SIL)		SIL 3
MTTF <sub>d</sub>		7666 a
Mission Time (T <sub>M</sub> )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012
<b>Approvals and certificates</b>		
EAC conformity		TR CU 012/2011
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
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
<b>Mechanical specifications</b>		
Connection type		cable silicone , 2 m
Core cross-section		0.75 mm <sup>2</sup>
Housing material		Crastin (PBT), black
Sensing face		Crastin (PBT), black
Degree of protection		IP68
Cable		
Cable diameter		6.8 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Note		only for non-ferrous metal
<b>General information</b>		
Use in the hazardous area		see instruction manuals

## Connection



Accessories

	<b>BF 18</b>	Mounting flange, 18 mm
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## Application

**Danger!**

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