

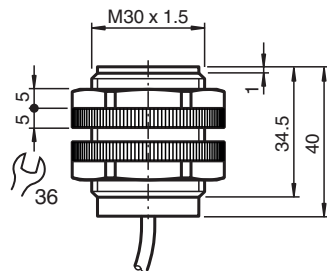
# Inductive sensor NJ10-30GK-SN-10M



- 10 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	$s_n$	10 mm
Installation		flush
Assured operating distance	$s_a$	0 ... 8.1 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

### Nominal ratings

Nominal voltage	$U_o$	8.2 V
Switching frequency	$f$	0 ... 300 Hz

Release date: 2020-05-06 Date of issue: 2020-05-06 Filename: 250939\_eng.pdf

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

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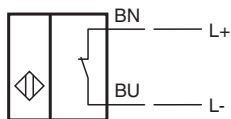
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 **PEPPERL+FUCHS**


## Technical Data

Current consumption	
Measuring plate not detected	≥ 3 mA
Measuring plate detected	≤ 1 mA
<b>Functional safety related parameters</b>	
Safety Integrity Level (SIL)	SIL 3
MTTF <sub>d</sub>	11850 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %
<b>Compliance with standards and directives</b>	
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
<b>Approvals and certificates</b>	
EAC conformity	TR CU 012/2011
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	-50 ... 100 °C (-58 ... 212 °F)
<b>Mechanical specifications</b>	
Connection type	cable silicone , 10 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 mm ± 0.2 mm
Bending radius	> 10 x cable diameter
Note	Security relevant only up to -40°C
<b>General information</b>	
Use in the hazardous area	see instruction manuals

## Connection



## Accessories

	<b>BF 30</b>	Mounting flange, 30 mm
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## 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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