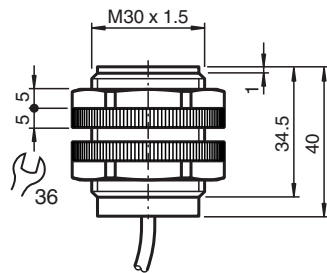# Inductive sensor

NJ15-30GK-SN-5M

- 15 mm non-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

CE   EAC   c UL us

Dimensions

M30 x 1.5
5 5
1
34.5
40
36

Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR with safety function
Rated operating distance	s_n	15 mm
Installation		non-flush
Assured operating distance	s_a	0 ... 12.15 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

Installation conditions		
A		18 mm

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

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Technical Data

B		30 mm
C		45 mm
F		90 mm
Nominal voltage	U_o	8.2 V
Switching frequency	f	0 ... 100 Hz
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 3
$MTTF_d$		11850 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		
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
Ambient conditions		
Ambient temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		cable silicone , 5 m
Core cross-section		0.75 mm^2
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
General information		
Use in the hazardous area		see instruction manuals

Connection

BN — L+

BU — L-

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2
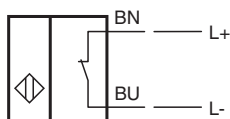
Installation
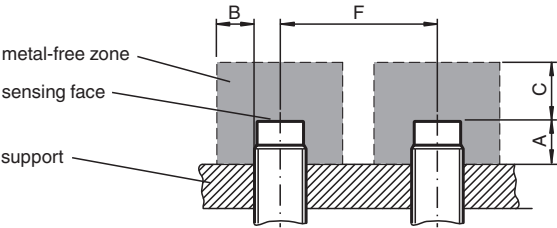
Accessories

	BF 30	Mounting flange, 30 mm

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

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Application

Danger!
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