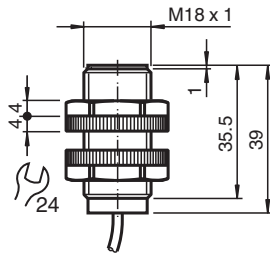# Inductive sensor

NJ8-18GK-SN

- 8 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

Dimensions

Technical Data

General specifications		
Switching function		Normally closed (NC)
Output type		NAMUR with safety function
Rated operating distance	s_n	8 mm
Installation		non-flush
Assured operating distance	s_a	0 ... 6.48 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		
Nominal voltage	U_o	8.2 V
Switching frequency	f	0 ... 200 Hz

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

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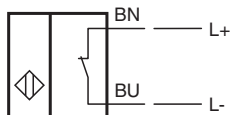Germany: +49 621 776 1111
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Technical Data

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	
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)	
Mechanical specifications		
Connection type	cable silicone , 2 m	
Core cross-section	0.75 mm²	
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

Accessories

	BF 18	Mounting flange, 18 mm

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

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Application

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