

Inductive sensor

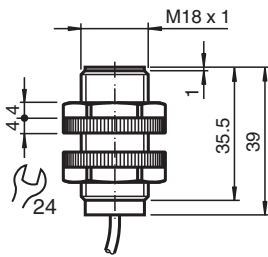
NJ8-18GK-SN-50M



- 8 mm non-flush
- Degree of protection IP68
- ATEX-/IECEx-approvals for zone 0/1/20/21 (Ex i)
- ATEX-/IECEx-approvals for zone 2/22 (Ex ec/tc)



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_{AI}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.85
Output type		2-wire
Nominal ratings		
Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 200 Hz
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Functional safety related parameters		

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

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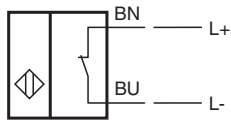
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Technical Data

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	
IECEX approval	
Equipment protection level Ga	IECEX PTB 11.0092X
Equipment protection level Gb	IECEX PTB 11.0092X
Equipment protection level Gc (ec)	IECEX TUR 21.0017X
Equipment protection level Da	IECEX PTB 11.0092X
Equipment protection level Dc (tc)	IECEX TUR 21.0018X
Equipment protection level Mb	IECEX PTB 11.0092X
ATEX approval	
Equipment protection level Ga	PTB 00 ATEX 2049 X
Equipment protection level Gb	PTB 00 ATEX 2049 X
Equipment protection level Gc (ec)	TÜV 20 ATEX 8523 X
Equipment protection level Da	PTB 00 ATEX 2049 X
Equipment protection level Dc (tc)	TÜV 20 ATEX 8524 X
UL approval	
Ordinary Location	E87056
Hazardous Location	E501628
Control drawing	116-0454
CCC approval	
Hazardous Location	2020322315002308
NEPSI approval	
NEPSI certificate	GYJ16.1392X
Ambient conditions	
Ambient temperature	-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications	
Connection type	cable
Housing material	Crastin (PBT), black
Sensing face	Crastin (PBT), black
Degree of protection	IP68
Cable	
Wire end ferrules	yes
Cable diameter	6 mm ± 0.2 mm
Bending radius	> 10 x cable diameter
Material	silicone
Core cross section	0.75 mm ²
Length	L 50 m
General information	
Use in the hazardous area	see instruction manuals

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Connection



Accessories

	<p>BF 18</p>	<p>Mounting flange, 18 mm</p>
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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.

Consider the "exida Functional Safety Assessment" document which is available on www.pepperl-fuchs.com as an integral part of this product's documentation.