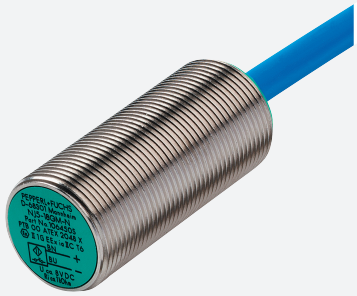
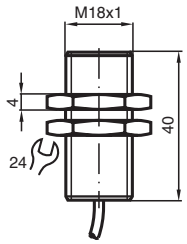


Inductive sensor

NJ5-18GM-N-5M

- 5 mm flush
- Usable up to SIL 2 acc. to IEC 61508

Dimensions



Technical Data

General specifications		
Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	5 mm
Installation		flush
Assured operating distance	s_a	0 ... 4.05 mm
Reduction factor r_{Al}		0.21
Reduction factor r_{Cu}		0.18
Reduction factor r_{304}		0.63
Output type		2-wire
Nominal ratings		
Nominal voltage	U_o	8.2 V (R_i approx. 1 kΩ)
Operating voltage	U_B	5 ... 25 V
Switching frequency	f	0 ... 500 Hz
Hysteresis	H	3 %
Current consumption		
Measuring plate not detected		≥ 3 mA at nominal voltage

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Technical Data

Measuring plate detected		≤ 1 mA at nominal voltage
Functional safety related parameters		
Safety Integrity Level (SIL)		SIL 2
$MTTF_d$		4566 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 11.0037X
Equipment protection level Gb		IECEx PTB 11.0037X
Equipment protection level Da		IECEx PTB 11.0037X
Equipment protection level Mb		IECEx PTB 11.0037X
ATEX approval		
Equipment protection level Ga		PTB 00 ATEX 2048 X
Equipment protection level Gb		PTB 00 ATEX 2048 X
Equipment protection level Da		PTB 00 ATEX 2048 X
UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0452
CCC approval		
Hazardous Location		2020322315002255
NEPSI approval		
NEPSI certificate		GYJ16.1393X
CML approval		on request
ANZEx		18.3018X
KCC approval		
Hazardous Location		19-AV4BO-0227
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Mechanical specifications		
Connection type		cable
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PBT
Degree of protection		IP66 / IP67
Cable		
Cable diameter		6 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Material		PVC
Core cross section		0.75 mm^2
Length	L	5 m
Dimensions		
Length		40 mm
Diameter		18 mm
General information		
Use in the hazardous area		see instruction manuals

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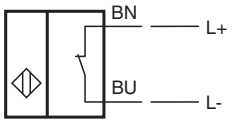
Connection



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