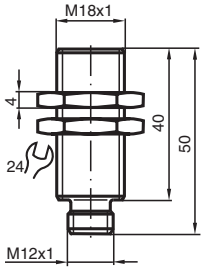
Inductive sensor

NJ5-18GM-N-V1

- 5 mm flush
- Usable up to SIL 2 acc. to IEC 61508
- NAMUR output
- Stainless steel housing

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 IEC 60947-5-2
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
CML approval	on request
ANZEx	18.3018X
KCC approval	
Hazardous Location	19-AV4BO-0227
Marine approval	DNVGL TAA00001A5
Ambient conditions	
Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
Mechanical specifications	
Connection type	Connector plug
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PBT
Degree of protection	IP66 / IP67
Connector	
Threading	M12 x 1
Number of pins	4
Dimensions	
Length	50 mm
Diameter	18 mm
General information	
Scope of delivery	2 self locking nuts in scope of delivery
Use in the hazardous area	see instruction manuals

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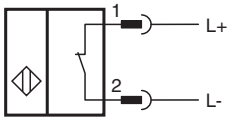
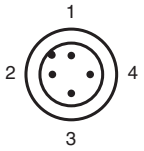
Connection Assignment



Connection Assignment



Wire colors in accordance with EN 60947-5-6

1	|	BN	(brown)
2	|	BU	(blue)

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