

Inductive sensor

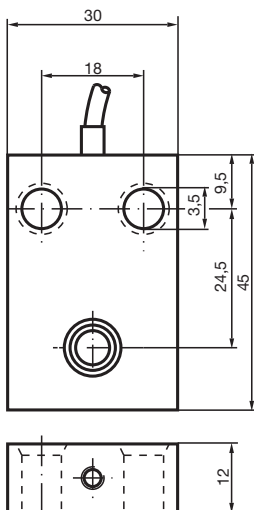
NJ6-F-N



- Comfort series
- 6 mm flush



Dimensions



Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	6 mm
Installation		flush
Assured operating distance	s_a	0 ... 4.8 mm
Actual operating distance	s_r	5.4 ... 6.6 mm typ.
Reduction factor r_{AI}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.7
Output type		2-wire

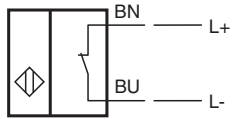
Nominal ratings

Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 5000 Hz

Technical Data

Hysteresis	H	0 ... 0.3 typ. 0.1 %
Reverse polarity protection		reverse polarity protected
Current consumption		
Measuring plate not detected		min. 3 mA
Measuring plate detected		≤ 1 mA
Functional safety related parameters		
MTTF _d		4540 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Compliance with standards and directives		
Standard conformity		
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 Gb		IECEX PTB 11.0021X
Equipment protection level Da		IECEX PTB 11.0021X
Equipment protection level Mb		IECEX PTB 11.0021X
ATEX approval		
Equipment protection level Gb		PTB 00 ATEX 2032 X
Equipment protection level Da		PTB 00 ATEX 2032 X
FM approval		
Control drawing		116-0165
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 100 °C (-13 ... 212 °F)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		cable
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Cable		
Cable diameter		4.8 mm ± 0.2 mm
Bending radius		> 10 x cable diameter
Material		PUR
Core cross-section		0.34 mm ²
Length	L	2 m
Mass		78 g
General information		
Use in the hazardous area		see instruction manuals

Connection



Operation

Attention!

NAMUR-compliant switch amplifiers can, due to a low current consumption at the recorded measuring plate (0.2 mA ... 1 mA), incorrectly report cable breaks (required in accordance with EN 60947-5-6:2000: 0.4 mA ... 1 mA).