



Model Number

NJ10-F-N

Features

- Comfort series
- 10 mm non-flush

Technical Data

General specifications

Switching element function		NAMUR, NC
Rated operating distance	s_n	10 mm
Installation		non-flush
Output polarity		NAMUR
Assured operating distance	s_a	0 ... 8.1 mm
Reduction factor r_{Al}		0.4
Reduction factor r_{Cu}		0.3
Reduction factor r_{304}		0.7

Nominal ratings

Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 3000 Hz
Hysteresis	H	0 ... 0.3 typ. 0.1 %
Reverse polarity protection		reverse polarity protected
Current consumption		
Measuring plate not detected		≥ 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 %

Ambient conditions

Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
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Mechanical specifications

Connection type	cable PUR , 2 m
Core cross-section	0.34 mm ²
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67

General information

Use in the hazardous area	see instruction manuals
Category	2G

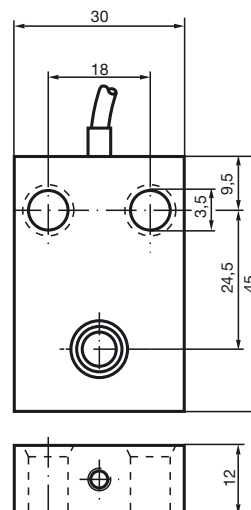
Compliance with standards and directives

Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

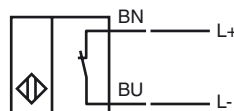
Approvals and certificates

FM approval	
Control drawing	116-0165F
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V



Dimensions



Electrical Connection



ATEX 2G

Instruction	Manual electrical apparatus for hazardous areas
Device category 2G	for use in hazardous areas with gas, vapour and mist
EC-Type Examination Certificate	PTB 00 ATEX 2032 X
CE marking	 0102
ATEX marking	 II 2G Ex ia IIC T6 Gb
Directive conformity	94/9/EG
Standards	EN 60079-0:2009, EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type	NJ 10-F-N...
Effective internal capacitance C_i	$\leq 85 \text{ nF}$; a cable length of 10 m is considered.
Effective internal inductance L_i	$\leq 100 \text{ }\mu\text{H}$; a cable length of 10 m is considered.
General	The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The EC-Type Examination Certificate has to be observed. The special conditions must be adhered to!
Ambient temperature	The temperature ranges, according to temperature class, are given in the EC-Type Examination Certificate.
Installation, Commissioning	Laws and/or regulations and standards governing the use or intended usage goal must be observed. The intrinsic safety is only assured in connection with an appropriate related apparatus and according to the proof of intrinsic safety.
Maintenance	No changes can be made to apparatus, which are operated in hazardous areas. Repairs to these apparatus are not possible.
Specific conditions	