0102

Model Number

NJ6-F-N

Features

- **Comfort series**
- **6 mm flush**

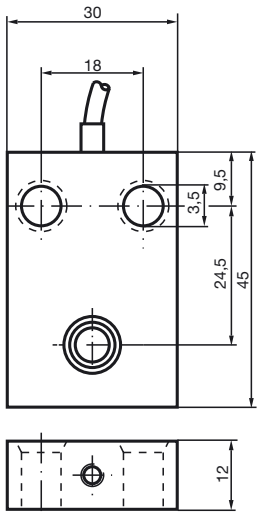
Application

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).

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_{Al}		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 kΩ)
Switching frequency	f	0 ... 5000 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)
Storage temperature		-40 ... 100 °C (-40 ... 212 °F)
Mechanical specifications		
Connection type		cable PUR , 2 m
Core cross-section		0.34 mm²
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Cable		
Bending radius		> 10 x cable diameter
Mass		78 g
General information		
Use in the hazardous area		see instruction manuals
Category		2G
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates		
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

Dimensions



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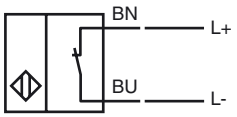
Electrical Connection



Equipment protection level Gb		
CE marking		CE 0102
ATEX marking		Ex II 2G Ex ia IIC T6…T1 Gb The Ex-related marking can also be printed on the enclosed label.
Standards		EN 60079-0:2012+A11:2013, EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NJ6-F-N..
Effective internal capacitance	C_i	≤ 70 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 100 µH ; a cable length of 10 m is considered.
Maximum permissible ambient temperature	T_{amb}	Details of the correlation between the type of circuit connected, the maximum permissible ambient temperature, the temperature class, and the effective internal reactance values can be found on the EU-type examination certificate.
Special conditions		
Equipment protection level Da		
CE marking		CE 0102
ATEX marking		Ex II 1D Ex ia IIIC T135°C Da The Ex-related marking can also be printed on the enclosed label.
Standards		EN 60079-0:2012+A11:2013, EN 60079-11:2012 Ignition protection "Intrinsic safety" Use is restricted to the following stated conditions
Appropriate type		NJ6-F-N..
Effective internal capacitance	C_i	≤ 70 µF A cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 100 µH A cable length of 10 m is considered.
Special conditions		

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