



Model Number

NJ6-F-N-5M

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_{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
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, 5 m
Core cross-section	0,34 mm ²
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67
Cable	
Bending radius	> 10 x cable diameter
Mass	165 g

General information

Use in the hazardous area	see instruction manuals
Category	2G

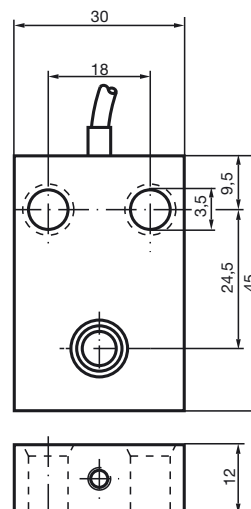
Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

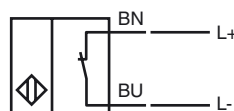
Approvals and certificates

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



Equipment protection level Gb

CE marking		CE 0102
ATEX marking		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 inductivity	C_i	$\leq 70 \text{ nF}$; 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.
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		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 inductivity	C_i	$\leq 70 \text{ }\mu\text{F}$ 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.

Special conditions