



Model Number

NJ8-18GK-N

Features

- 8 mm non-flush
- Usable up to SIL 2 acc. to IEC 61508

Accessories

BF 18

Mounting flange, 18 mm

Technical Data

General specifications

Switching function	Normally closed (NC)
Output type	NAMUR
Rated operating distance	s_n 8 mm
Installation	non-flush
Assured operating distance	s_a 0 ... 6.48 mm
Reduction factor r_{AI}	0.4
Reduction factor r_{Cu}	0.3
Reduction factor r_{304}	0.85
Output type	2-wire

Nominal ratings

Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 200 Hz
Hysteresis	H	1 ... 7 typ. 4 %
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA

Ambient conditions

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

Connection type	cable PVC , 2 m
Core cross-section	0.75 mm ²
Housing material	PBT/PPS
Sensing face	PBT
Degree of protection	IP66 / IP68
Cable	
Cable diameter	6 mm \pm 0.2 mm
Bending radius	> 10 x cable diameter

General information

Use in the hazardous area	see instruction manuals
Category	2G; 1D

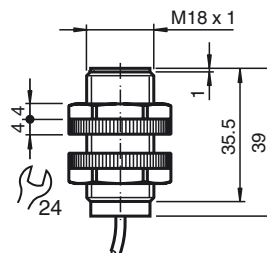
Compliance with standards and directives

Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Standards	EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012

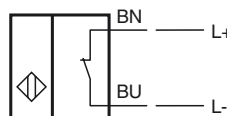
Approvals and certificates

EAC conformity	TR CU 012/2011
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



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	NJ 8-18GK-N...	
Effective internal capacitance C_i	≤ 70 nF ; a cable length of 10 m is considered.	
Effective internal inductance L_i	≤ 50 μ 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 EC-type examination certificate.	

Equipment protection level Da

CE marking	CE 0102	
ATEX marking	II 1D Ex ia IIC 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	NJ 8-18GK-N...	
Effective internal capacitance C_i	≤ 70 nF ; a cable length of 10 m is considered.	
Effective internal inductance L_i	≤ 50 μ 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 surface temperature, and the effective internal reactance values can be found on the EC-type-examination certificate. The maximum permissible ambient temperature of the data sheet must be noted, in addition, the lower of the two values must be maintained.	