



Model Number

NJ5-18GK-N-150

Features

- 5 mm flush
- Temperature range
-40 ... 150 °C (-40 ... 302 °F)

Technical Data

General specifications

Switching function	Normally closed (NC)
Output type	NAMUR
Rated operating distance	s_n 5 mm
Installation	flush
Assured operating distance	s_a 0 ... 4.05 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 ... 500 Hz
Current consumption	
Measuring plate not detected	≥ 3 mA
Measuring plate detected	≤ 1 mA

Functional safety related parameters

MTTF _d	4542 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-40 ... 150 °C (-40 ... 302 °F)
---------------------	---------------------------------

Mechanical specifications

Connection type	cable SIHF, 2 m
Core cross-section	0.34 mm ²
Housing material	PPS
Sensing face	PPS
Degree of protection	IP65
Cable	
Bending radius	> 10 x cable diameter

General information

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

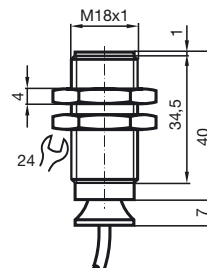
Compliance with standards and directives

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

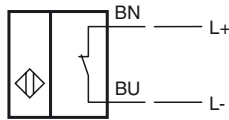
Approvals and certificates

EAC conformity	TR CU 012/2011
UL approval	
Ordinary Location	E87056
Hazardous Location	E501628
Control drawing	116-0452
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

Dimensions



Electrical Connection



Equipment protection level Ga

CE marking	CE 0102
ATEX marking	II 1G Ex ia IIC T6...T1 Ga 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	NJ5-18GK-N-150...
Effective internal capacitance C_i	$\leq 70 \text{ nF}$; a cable length of 10 m is considered.
Effective internal inductance L_i	$\leq 50 \text{ }\mu\text{H}$; a cable length of 10 m is considered.
Highest permissible ambient temperature	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. Note: Use the temperature table for category 1 !!! The 20 % reduction in accordance with EN 1127-1 has already been applied to the temperature table for category 1.

Special conditions

Equipment protection level Gb

CE marking	CE 0102
ATEX marking	II 1G Ex ia IIC T6...T1 Ga 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	NJ5-18GK-N-150...
Effective internal capacitance C_i	$\leq 70 \text{ nF}$; a cable length of 10 m is considered.
Effective internal inductance L_i	$\leq 50 \text{ }\mu\text{H}$; 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 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	NJ5-18GK-N-150...
Effective internal capacitance C_i	$\leq 70 \text{ }\mu\text{F}$ A cable length of 10 m is considered.
Effective internal inductance L_i	$\leq 50 \text{ }\mu\text{H}$ A cable length of 10 m is considered.

Special conditions