



## Model Number

NJ1,5-18GM-N-D

## Features

- 1.5 mm flush
- Compression proof up to 350 bar, dynamic on active surface
- Usable up to SIL 2 acc. to IEC 61508

## Application

### Note

Please refer to the technical information about this product at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com). This information describes the necessary geometry of the installation space!

## Technical Data

### General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	$s_n$	1.5 mm
Installation		flush
Assured operating distance	$s_a$	0 ... 1.22 mm
Reduction factor $r_{AI}$		0
Reduction factor $r_{Cu}$		0
Reduction factor $r_{304}$		0.55
Output type		2-wire

### Nominal ratings

Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	f	0 ... 400 Hz
Hysteresis	H	typ. %
Current consumption		
Measuring plate not detected		$\geq 3$ mA
Measuring plate detected		$\leq 1$ mA

### Limit data

Operating pressure		350 bar (5076.4 psi)
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### Functional safety related parameters

MTTF <sub>d</sub>		10880 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %

### Ambient conditions

Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
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### Mechanical specifications

Connection type		cable PVC , 2 m
Core cross-section		0.34 mm <sup>2</sup>
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		Ceramic
Degree of protection		IP66 / IP68
Cable		
Cable diameter		4.8 mm $\pm$ 0.2 mm
Bending radius		> 10 x cable diameter

### General information

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

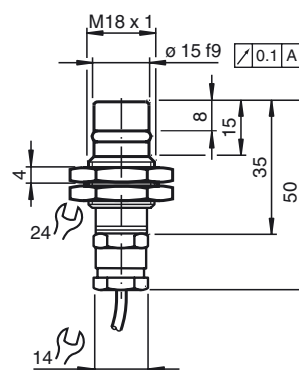
### Compliance with standards and directives

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

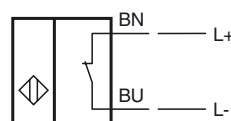
### Approvals and certificates

EAC conformity		TR CU 012/2011
UL approval		cULus Listed, General Purpose
CSA approval		cCSAus Listed, General Purpose

## 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	NJ1,5-18GM-N-D..	
Effective internal capacitance $C_i$	$\leq 50$ nF ; a cable length of 10 m is considered.	
Effective internal inductance $L_i$	$\leq 60$ $\mu$ 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	NJ1,5-18GM-N-D..	
Effective internal capacitance $C_i$	$\leq 50$ nF ; a cable length of 10 m is considered.	
Effective internal inductance $L_i$	$\leq 60$ $\mu$ 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. <b>The maximum permissible ambient temperature of the data sheet must be noted, in addition, the lower of the two values must be maintained.</b>	



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