0102

Model Number

NJ1,5-18GM-N-D-V1

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. This information describes the necessary geometry of the installation space!

Accessories

V1-G
Female connector, M12, 4-pin, field attachable

V1-W
Female connector, M12, 4-pin, field attachable

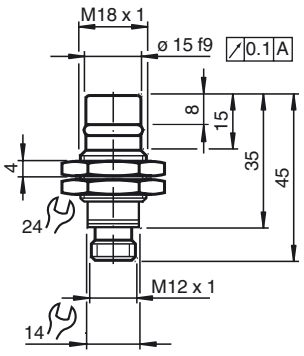
V1-W-N-2M-PUR
Female cordset, M12, 2-pin, NAMUR, PUR cable

V1-G-N-2M-PUR
Female cordset, M12, 2-pin, NAMUR, PUR cable

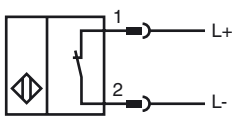
Technical Data

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_{Al}		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 kΩ)
Switching frequency	f	0 ... 400 Hz
Hysteresis	H	typ. %
Current consumption		
Measuring plate not detected		≥ 3 mA
Measuring plate detected		≤ 1 mA
Limit data		
Operating pressure		350 bar (5076.4 psi)
Functional safety related parameters		
$MTTF_d$		10887 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Ambient conditions		
Ambient temperature		-25 ... 85 °C (-13 ... 185 °F)
Mechanical specifications		
Connection type		Connector plug M12 x 1 , 4-pin
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		Ceramic
Degree of protection		IP67
Mass		41.81 g
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



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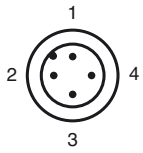
Pinout



Wire colors in accordance with EN 60947-5-6

1	|	BN	(brown)
2	|	BU	(blue)

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		NJ1,5-18GM-N-D..
Effective internal inductivity	C_i	≤ 50 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 60 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 EC-type examination certificate.
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		NJ1,5-18GM-N-D..
Effective internal inductivity	C_i	≤ 50 nF ; a cable length of 10 m is considered.
Effective internal inductance	L_i	≤ 60 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 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.**

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