



Model Number

NJ1,5-8GM-N-V1

Features

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

Accessories

V1-G

Female connector, M12, 4-pin, field attachable

V1-W

Female connector, M12, 4-pin, field attachable

V1-G-N-2M-PUR

Female cordset, M12, 2-pin, NAMUR, PUR cable

V1-W-N-2M-PUR

Female cordset, M12, 2-pin, NAMUR, PUR cable

BF 8

Mounting flange, 8 mm

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 ... 1.215 mm
Actual operating distance	s_r 1.35 ... 1.65 mm typ.
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 ... 5000 Hz
Hysteresis	H 1 ... 10 typ. 5 %
Suitable for 2:1 technology	yes, Reverse polarity protection diode not required
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	Connector plug M12 x 1, 4-pin
Housing material	Stainless steel 1.4305 / AISI 303
Sensing face	PBT
Degree of protection	IP67

General information

Use in the hazardous area	see instruction manuals
Category	2G

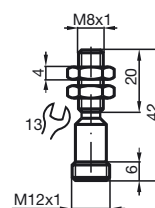
Compliance with standards and directives

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

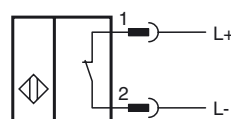
Approvals and certificates

EAC conformity	TR CU 012/2011
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

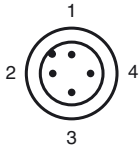
Dimensions



Electrical Connection



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		NJ1,5-8GM-N...
Effective internal capacitance	C _i	≤ 30 nF ; a cable length of 10 m is considered.
Effective internal inductance	L _i	≤ 50 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 EU-type examination certificate.
Special conditions		
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		NJ1,5-8GM-N...
Effective internal capacitance	C _i	≤ 30 μF A cable length of 10 m is considered.
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