



Model Number

NJ4-30GM-N-200

Features

- 4 mm flush
- Temperature range
0 ... 200 °C (0 ... 392 °F)

Technical Data

General specifications

Switching function		Normally closed (NC)
Output type		NAMUR
Rated operating distance	s_n	4 mm
Installation		flush
Assured operating distance	s_a	0 ... 3.04 mm
Reduction factor r_{AI}		0.15
Reduction factor r_{Cu}		0.05
Reduction factor r_{304}		0.55
Output type		2-wire

Nominal ratings

Nominal voltage	U_o	8.2 V (R_i approx. 1 k Ω)
Switching frequency	f	0 ... 1000 Hz
Hysteresis	H	≤ 20 % at 200°C
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		0 ... 200 °C (32 ... 392 °F)
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Mechanical specifications

Connection type		cable SIHF, 5 m
Core cross-section		0.34 mm ²
Housing material		Stainless steel 1.4305 / AISI 303
Sensing face		PPS
Degree of protection		IP65
Cable		
Bending radius		> 7.5 x cable diameter
Note		amplifier -25°C...70°C 2 m PTFE cable between amplifier and oscillator

General information

Use in the hazardous area		see instruction manuals
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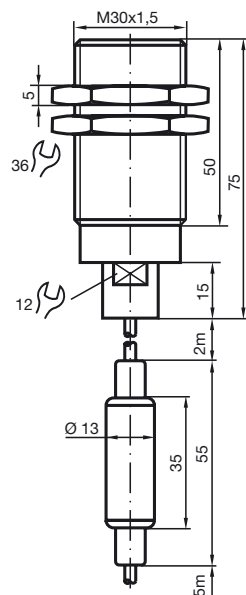
Compliance with standards and directives

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

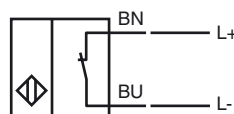
Approvals and certificates

UL approval		cULus Listed, General Purpose
CCC approval		CCC approval / marking not required for products rated ≤36 V

Dimensions



Electrical Connection




Data for application in connection with hazardous areas

Equipment protection level	Ga , Gb , Da
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Equipment protection level Ga

Type of protection	intrinsic safety
CE marking	 0102

Certificates

Appropriate type	NJ4-30GM-N-200...
ATEX certificate	PTB 00 ATEX 2048 X
ATEX marking	 II 1G Ex ia IIC T6...T1 Ga
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012

Effective internal inductivity	C_i	$\leq 70 \text{ nF}$ A cable length of 10 m is considered.
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Effective internal inductance	L_i	$\leq 100 \mu\text{H}$ A cable length of 10 m is considered.
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Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. Refer to the relevant certificate to see the relationship between the connected circuit type, the maximum permitted ambient temperature, the effective inner reactances, and if applicable the surface temperature or the temperature class.
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for ATEX	at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 34 \text{ mW}$, at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 64 \text{ mW}$, at $U_i = 16 \text{ V}$, $I_i = 52 \text{ mA}$, $P_i = 169 \text{ mW}$, at $U_i = 16 \text{ V}$, $I_i = 76 \text{ mA}$, $P_i = 242 \text{ mW}$
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Equipment protection level Gb

Type of protection	intrinsic safety
CE marking	 0102

Certificates

Appropriate type	NJ4-30GM-N-200...
ATEX certificate	PTB 00 ATEX 2048 X
ATEX marking	 II 1G Ex ia IIC T6...T1 Ga
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012

Effective internal inductivity	C_i	$\leq 70 \text{ nF}$ A cable length of 10 m is considered.
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Effective internal inductance	L_i	$\leq 100 \mu\text{H}$ A cable length of 10 m is considered.
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Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. Refer to the relevant certificate to see the relationship between the connected circuit type, the maximum permitted ambient temperature, the effective inner reactances, and if applicable the surface temperature or the temperature class.
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for ATEX	at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 34 \text{ mW}$, at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 64 \text{ mW}$, at $U_i = 16 \text{ V}$, $I_i = 52 \text{ mA}$, $P_i = 169 \text{ mW}$, at $U_i = 16 \text{ V}$, $I_i = 76 \text{ mA}$, $P_i = 242 \text{ mW}$
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Equipment protection level Da

Type of protection	intrinsic safety
CE marking	 0102

Certificates

Appropriate type	NJ4-30GM-N-200...
ATEX certificate	PTB 00 ATEX 2048 X
ATEX marking	 II 1D Ex ia IIIC T135°C Da
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012

Effective internal inductivity	C_i	$\leq 70 \text{ nF}$ A cable length of 10 m is considered.
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Effective internal inductance	L_i	$\leq 100 \mu\text{H}$ A cable length of 10 m is considered.
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Maximum permissible ambient temperature T_{amb}	Also observe the maximum permissible ambient temperature stated in the general technical data. Keep to the lower of the two values. Refer to the relevant certificate to see the relationship between the connected circuit type, the maximum permitted ambient temperature, the effective inner reactances, and if applicable the surface temperature or the temperature class.
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for ATEX	at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 34 \text{ mW}$: at $U_i = 16 \text{ V}$, $I_i = 25 \text{ mA}$, $P_i = 64 \text{ mW}$. at $U_i = 16 \text{ V}$, $I_i = 52 \text{ mA}$, $P_i = 169 \text{ mW}$, at $U_i = 16 \text{ V}$, $I_i = 76 \text{ mA}$, $P_i = 242 \text{ mW}$
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