



### 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 $\Omega$ )
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 <sup>2</sup>
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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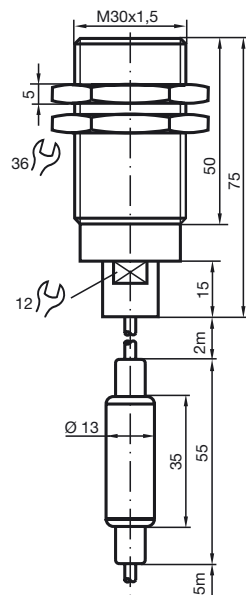
### Compliance with standards and directives

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

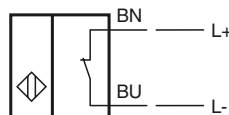
### Approvals and certificates

UL approval		
Ordinary Location		E87056
Hazardous Location		E501628
Control drawing		116-0452
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	
<b>Equipment protection level Ga</b>		
Type of protection	intrinsic safety	
CE marking	CE 0102	
<b>Certificates</b>		
Appropriate type	NJ4-30GM-N-200...	
ATEX certificate	PTB 00 ATEX 2048 X	
ATEX marking	Ex II 1G Ex ia IIC T6...T1 Ga	
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012	
Effective internal capacitance	$C_i$	$\leq 70 \text{ nF}$ A cable length of 10 m is considered.
Effective internal inductance	$L_i$	$\leq 100 \text{ }\mu\text{H}$ A cable length of 10 m is considered.
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.	
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 $U_i = 16 \text{ V}$ , $I_i = 76 \text{ mA}$ , $P_i = 242 \text{ mW}$	
<b>Equipment protection level Gb</b>		
Type of protection	intrinsic safety	
CE marking	CE 0102	
<b>Certificates</b>		
Appropriate type	NJ4-30GM-N-200...	
ATEX certificate	PTB 00 ATEX 2048 X	
ATEX marking	Ex II 1G Ex ia IIC T6...T1 Ga	
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012	
Effective internal capacitance	$C_i$	$\leq 70 \text{ nF}$ A cable length of 10 m is considered.
Effective internal inductance	$L_i$	$\leq 100 \text{ }\mu\text{H}$ A cable length of 10 m is considered.
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.	
	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 $U_i = 16 \text{ V}$ , $I_i = 76 \text{ mA}$ , $P_i = 242 \text{ mW}$	
<b>Equipment protection level Da</b>		
Type of protection	intrinsic safety	
CE marking	CE 0102	
<b>Certificates</b>		
Appropriate type	NJ4-30GM-N-200...	
ATEX certificate	PTB 00 ATEX 2048 X	
ATEX marking	Ex II 1D Ex ia IIIC T135°C Da	
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012	
Effective internal capacitance	$C_i$	$\leq 70 \text{ nF}$ A cable length of 10 m is considered.
Effective internal inductance	$L_i$	$\leq 100 \text{ }\mu\text{H}$ A cable length of 10 m is considered.
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.	
	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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