



### Model Number

SJ2-N-Y34361

### Features

- Comfort series

## Technical Data

### General specifications

Switching function	Normally closed (NC)
Output type	NAMUR
Slot width	2 mm
Depth of immersion (lateral)	5 ... 7 typ. 6 mm
Output type	2-wire

### Nominal ratings

Nominal voltage	$U_o$	8 V
Operating voltage	$U_B$	5 ... 25 V
Switching frequency	f	0 ... 5000 Hz
Current consumption		
Measuring plate not detected		$\geq 3$ mA at nominal voltage
Measuring plate detected		$\leq 1$ mA at nominal voltage

### Ambient conditions

Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
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### Mechanical specifications

Connection type	cable PVC , 2 m
Core cross-section	0.06 mm <sup>2</sup>
Housing material	PBT
Degree of protection	IP67
Cable	
Bending radius	> 10 x cable diameter

### General information

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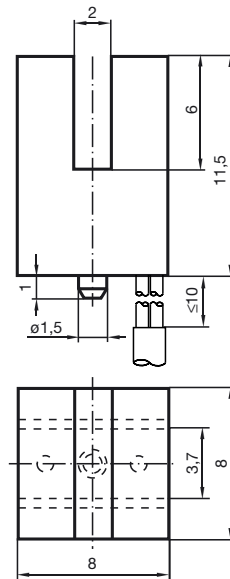
### Compliance with standards and directives

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

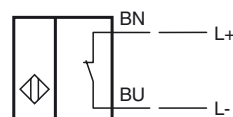
### Approvals and certificates

UL approval	cULus Listed, General Purpose
Ordinary Location	E87056
Hazardous Location	E501628
Control drawing	116-0453
CSA approval	cCSAus Listed, General Purpose

## Dimensions



## Electrical Connection



**Data for application in connection with hazardous areas**

Equipment protection level Ga , Gb , Da , Mb


**Equipment protection level Ga**

Type of protection intrinsic safety

CE marking  0102**Certificates**

Appropriate type SJ2-N...

ATEX certificate PTB 99 ATEX 2219 X

ATEX marking  II 1G Ex ia IIC T6...T1 Ga

Standards EN 60079-0:2012+A11:2013 , EN 60079-11:2012

IECEX certificate IECEX PTB 11.0091X

IECEX marking Ex ia IIC T6...T1 Ga

Standards IEC 60079-0:2011 , IEC 60079-11:2011

Effective internal capacitance  $C_i$   $\leq 30$  nF  
A cable length of 10 m is considered.Effective internal inductance  $L_i$   $\leq 100$   $\mu$ 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.

for ATEX

at  $U_i = 16$  V ,  $I_i = 25$  mA ,  $P_i = 34$  mW ,  
T6 : 56 °C (132.8 °F)  
T5 : 68 °C (154.4 °F)  
T4 : 96 °C (204.8 °F)  
T3 : 96 °C (204.8 °F)  
T2 : 96 °C (204.8 °F)  
T1 : 96 °C (204.8 °F)

at  $U_i = 16$  V ,  $I_i = 25$  mA ,  $P_i = 64$  mW ,  
T6 : 49 °C (120.2 °F)  
T5 : 61 °C (141.8 °F)  
T4 : 89 °C (192.2 °F)  
T3 : 89 °C (192.2 °F)  
T2 : 89 °C (192.2 °F)  
T1 : 89 °C (192.2 °F)

at  $U_i = 16$  V ,  $I_i = 52$  mA ,  $P_i = 169$  mW ,  
T6 : 28 °C (82.4 °F)  
T5 : 40 °C (104 °F)  
T4 : 68 °C (154.4 °F)  
T3 : 68 °C (154.4 °F)  
T2 : 68 °C (154.4 °F)  
T1 : 68 °C (154.4 °F)

at  $U_i = 16$  V ,  $I_i = 76$  mA ,  $P_i = 242$  mW ,  
T6 : 13 °C (55.4 °F)  
T5 : 25 °C (77 °F)  
T4 : 53 °C (127.4 °F)  
T3 : 53 °C (127.4 °F)  
T2 : 53 °C (127.4 °F)  
T1 : 53 °C (127.4 °F)

for IECEx

at  $U_i = 16$  V ,  $I_i = 25$  mA ,  $P_i = 34$  mW ,  
T6 : 73 °C (163.4 °F)  
T5 : 88 °C (190.4 °F)  
T4 : 100 °C (212 °F)  
T3 : 100 °C (212 °F)  
T2 : 100 °C (212 °F)  
T1 : 100 °C (212 °F)

at  $U_i = 16$  V ,  $I_i = 25$  mA ,  $P_i = 64$  mW ,  
T6 : 67 °C (152.6 °F)  
T5 : 82 °C (179.6 °F)  
T4 : 100 °C (212 °F)  
T3 : 100 °C (212 °F)  
T2 : 100 °C (212 °F)  
T1 : 100 °C (212 °F)

at  $U_i = 16$  V ,  $I_i = 52$  mA ,  $P_i = 169$  mW ,  
T6 : 45 °C (113 °F)  
T5 : 60 °C (140 °F)  
T4 : 78 °C (172.4 °F)  
T3 : 78 °C (172.4 °F)  
T2 : 78 °C (172.4 °F)  
T1 : 78 °C (172.4 °F)

at  $U_i = 16$  V ,  $I_i = 76$  mA ,  $P_i = 242$  mW ,  
T6 : 30 °C (86 °F)  
T5 : 45 °C (113 °F)  
T4 : 57 °C (134.6 °F)  
T3 : 57 °C (134.6 °F)  
T2 : 57 °C (134.6 °F)  
T1 : 57 °C (134.6 °F)

**Equipment protection level Gb**

Type of protection	intrinsic safety	
CE marking	CE 0102	
<b>Certificates</b>		
Appropriate type	SJ2-N...	
ATEX certificate	PTB 99 ATEX 2219 X	
ATEX marking	Ⓔ II 1G Ex ia IIC T6...T1 Ga	
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012	
IECEX certificate	IECEX PTB 11.0091X	
IECEX marking	Ex ia IIC T6...T1 Ga	
Standards	IEC 60079-0:2011 , IEC 60079-11:2011	
Effective internal capacitance	$C_i$	≤ 30 nF A cable length of 10 m is considered.
Effective internal inductance	$L_i$	≤ 100 μH 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. at $U_i = 16\text{ V}$ , $I_i = 25\text{ mA}$ , $P_i = 34\text{ mW}$ , T6 : 73 °C (163.4 °F) T5 : 88 °C (190.4 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 16\text{ V}$ , $I_i = 25\text{ mA}$ , $P_i = 64\text{ mW}$ , T6 : 67 °C (152.6 °F) T5 : 82 °C (179.6 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 16\text{ V}$ , $I_i = 52\text{ mA}$ , $P_i = 169\text{ mW}$ , T6 : 45 °C (113 °F) T5 : 60 °C (140 °F) T4 : 78 °C (172.4 °F) T3 : 78 °C (172.4 °F) T2 : 78 °C (172.4 °F) T1 : 78 °C (172.4 °F) at $U_i = 16\text{ V}$ , $I_i = 76\text{ mA}$ , $P_i = 242\text{ mW}$ , T6 : 30 °C (86 °F) T5 : 45 °C (113 °F) T4 : 57 °C (134.6 °F) T3 : 57 °C (134.6 °F) T2 : 57 °C (134.6 °F) T1 : 57 °C (134.6 °F)	

**Equipment protection level Da**

Type of protection	intrinsic safety	
CE marking	CE 0102	
<b>Certificates</b>		
Appropriate type	SJ2-N...	
ATEX certificate	PTB 99 ATEX 2219 X	
ATEX marking	Ⓔ II 1D Ex ia IIIC T135°C Da	
Standards	EN 60079-0:2012+A11:2013 , EN 60079-11:2012	
IECEX certificate	IECEX PTB 11.0091X	
IECEX marking	Ex ia IIIC T135°C Da	
Standards	IEC 60079-0:2011 , IEC 60079-11:2011	
Effective internal capacitance	$C_i$	≤ 30 nF A cable length of 10 m is considered.
Effective internal inductance	$L_i$	≤ 100 μH 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. at $U_i = 16\text{ V}$ , $I_i = 25\text{ mA}$ , $P_i = 34\text{ mW}$ : 100 °C (212 °F) at $U_i = 16\text{ V}$ , $I_i = 25\text{ mA}$ , $P_i = 64\text{ mW}$ : 100 °C (212 °F) at $U_i = 16\text{ V}$ , $I_i = 52\text{ mA}$ , $P_i = 169\text{ mW}$ : 78 °C (172.4 °F) at $U_i = 16\text{ V}$ , $I_i = 76\text{ mA}$ , $P_i = 242\text{ mW}$ : 57 °C (134.6 °F)	

**Equipment protection level Mb**

Type of protection	intrinsic safety	
<b>Certificates</b>		
Appropriate type	SJ2-N...	
IECEX certificate	IECEX PTB 11.0091X	
IECEX marking	Ex ia I Mb	
Standards	IEC 60079-0:2011 , IEC 60079-11:2011	
Effective internal capacitance	$C_i$	≤ 30 nF A cable length of 10 m is considered.
Effective internal inductance	$L_i$	≤ 100 μH 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.

at  $U_i = 16\text{ V}$ ,  $I_i = 25\text{ mA}$ ,  $P_i = 34\text{ mW}$  :  $100\text{ °C}$  ( $212\text{ °F}$ )

at  $U_i = 16\text{ V}$ ,  $I_i = 25\text{ mA}$ ,  $P_i = 64\text{ mW}$  :  $100\text{ °C}$  ( $212\text{ °F}$ )

at  $U_i = 16\text{ V}$ ,  $I_i = 52\text{ mA}$ ,  $P_i = 169\text{ mW}$  :  $78\text{ °C}$  ( $172.4\text{ °F}$ )

at  $U_i = 16\text{ V}$ ,  $I_i = 76\text{ mA}$ ,  $P_i = 242\text{ mW}$  :  $57\text{ °C}$  ( $134.6\text{ °F}$ )

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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