

### Model Number

SC3,5-N0-Y106571

### Features

- Comfort series
- 3.5 mm slot width

## Technical Data

### General specifications

Switching function	Normally closed (NC)
Output type	NAMUR
Slot width	3.5 mm
Depth of immersion (lateral)	5 ... 7 typ. 6 mm
Output type	2-wire

### Nominal ratings

Nominal voltage	$U_N$	8 V
Operating voltage	$U_B$	5 ... 25 V
Switching frequency	f	0 ... 3000 Hz
Hysteresis	H	0 ... 0.05

### Design data

Current consumption		
Measuring plate not detected		$\geq 3$ mA at nominal voltage
Measuring plate detected		$\leq 1$ mA at nominal voltage

### Functional safety related parameters

MTTF <sub>d</sub>	5290 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

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

Connection type	65 mm PVC cord with DuPont connector
Core cross-section	0.14 mm <sup>2</sup>
Housing material	PBT
Degree of protection	IP67 (plug connector, IP20)

### General information

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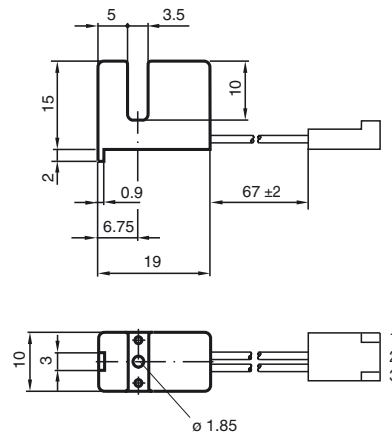
### Compliance with standards and directives

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

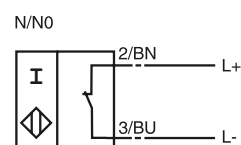
### Approvals and certificates

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	
<b>Equipment protection level Ga</b>		
Type of protection	intrinsic safety	
CE marking	CE 0102	
<b>Certificates</b>		
Appropriate type	SC3,5-N0-Y...	
ATEX certificate	PTB 99 ATEX 2219 X	
ATEX marking	Ex 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	$C_i$	$\leq 150 \text{ nF}$ A cable length of 10 m is considered.
Effective internal inductance	$L_i$	$\leq 150 \text{ }\mu\text{H}$ 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.	
for ATEX	at $U_i = 16 \text{ V}$ , $I_i = 25 \text{ mA}$ , $P_i = 34 \text{ mW}$ , T6 : 55 °C (131 °F) T5 : 67 °C (152.6 °F) T4 : 95 °C (203 °F) T3 : 95 °C (203 °F) T2 : 95 °C (203 °F) T1 : 95 °C (203 °F) at $U_i = 16 \text{ V}$ , $I_i = 25 \text{ mA}$ , $P_i = 64 \text{ mW}$ , T6 : 48 °C (118.4 °F) T5 : 60 °C (140 °F) T4 : 88 °C (190.4 °F) T3 : 88 °C (190.4 °F) T2 : 88 °C (190.4 °F) T1 : 88 °C (190.4 °F) at $U_i = 16 \text{ V}$ , $I_i = 52 \text{ mA}$ , $P_i = 169 \text{ mW}$ , T6 : 23 °C (73.4 °F) T5 : 35 °C (95 °F) T4 : 63 °C (145.4 °F) T3 : 63 °C (145.4 °F) T2 : 63 °C (145.4 °F) T1 : 63 °C (145.4 °F) at $U_i = 16 \text{ V}$ , $I_i = 76 \text{ mA}$ , $P_i = 242 \text{ mW}$ , T6 : 6 °C (42.8 °F) T5 : 18 °C (64.4 °F) T4 : 46 °C (114.8 °F) T3 : 46 °C (114.8 °F) T2 : 46 °C (114.8 °F) T1 : 46 °C (114.8 °F)	
for IECEx	at $U_i = 16 \text{ V}$ , $I_i = 25 \text{ mA}$ , $P_i = 34 \text{ mW}$ , T6 : 72 °C (161.6 °F) T5 : 87 °C (188.6 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 16 \text{ V}$ , $I_i = 25 \text{ mA}$ , $P_i = 64 \text{ mW}$ , T6 : 65 °C (149 °F) T5 : 80 °C (176 °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 : 40 °C (104 °F) T5 : 55 °C (131 °F) T4 : 75 °C (167 °F) T3 : 75 °C (167 °F) T2 : 75 °C (167 °F) T1 : 75 °C (167 °F) at $U_i = 16 \text{ V}$ , $I_i = 76 \text{ mA}$ , $P_i = 242 \text{ mW}$ , T6 : 23 °C (73.4 °F) T5 : 38 °C (100.4 °F) T4 : 54 °C (129.2 °F) T3 : 54 °C (129.2 °F) T2 : 54 °C (129.2 °F) T1 : 54 °C (129.2 °F)	

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**Equipment protection level Gb**

Type of protection	intrinsic safety	
CE marking	CE 0102	
<b>Certificates</b>		
Appropriate type	SC3,5-N0-Y...	
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	$C_i$	≤ 150 nF A cable length of 10 m is considered.
Effective internal inductance	$L_i$	≤ 150 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 $U_i = 16 V$ , $I_i = 25 mA$ , $P_i = 34 mW$ , T6 : 72 °C (161.6 °F) T5 : 87 °C (188.6 °F) T4 : 100 °C (212 °F) T3 : 100 °C (212 °F) T2 : 100 °C (212 °F) T1 : 100 °C (212 °F) at $U_i = 16 V$ , $I_i = 25 mA$ , $P_i = 64 mW$ , T6 : 65 °C (149 °F) T5 : 80 °C (176 °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 : 40 °C (104 °F) T5 : 55 °C (131 °F) T4 : 75 °C (167 °F) T3 : 75 °C (167 °F) T2 : 75 °C (167 °F) T1 : 75 °C (167 °F) at $U_i = 16 V$ , $I_i = 76 mA$ , $P_i = 242 mW$ , T6 : 23 °C (73.4 °F) T5 : 38 °C (100.4 °F) T4 : 54 °C (129.2 °F) T3 : 54 °C (129.2 °F) T2 : 54 °C (129.2 °F) T1 : 54 °C (129.2 °F)	

**Equipment protection level Da**

Type of protection	intrinsic safety	
CE marking	CE 0102	
<b>Certificates</b>		
Appropriate type	SC3,5-N0-Y...	
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	$C_i$	≤ 150 nF A cable length of 10 m is considered.
Effective internal inductance	$L_i$	≤ 150 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 $U_i = 16 V$ , $I_i = 25 mA$ , $P_i = 34 mW$ : 100 °C (212 °F) at $U_i = 16 V$ , $I_i = 25 mA$ , $P_i = 64 mW$ : 100 °C (212 °F) at $U_i = 16 V$ , $I_i = 52 mA$ , $P_i = 169 mW$ : 75 °C (167 °F) at $U_i = 16 V$ , $I_i = 76 mA$ , $P_i = 242 mW$ : 54 °C (129.2 °F)	

**Equipment protection level Mb**

Type of protection	intrinsic safety	
<b>Certificates</b>		
Appropriate type	SC3,5-N0-Y...	
IECEX certificate	IECEX PTB 11.0091X	
IECEX marking	Ex ia I Mb	
Standards	IEC 60079-0:2011 , IEC 60079-11:2011	
Effective internal capacitance	$C_i$	≤ 150 nF A cable length of 10 m is considered.
Effective internal inductance	$L_i$	≤ 150 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  $U_i = 16\text{ V}$ ,  $I_i = 52\text{ mA}$ ,  $P_i = 169\text{ mW}$  :  $75\text{ °C}$  ( $167\text{ °F}$ )

at  $U_i = 16\text{ V}$ ,  $I_i = 76\text{ mA}$ ,  $P_i = 242\text{ mW}$  :  $54\text{ °C}$  ( $129.2\text{ °F}$ )

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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