



## Model Number

NCN4-V3-N0

## Features

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

## Technical Data

### General specifications

Switching function	Normally closed (NC)
Output type	NAMUR
Rated operating distance	$s_n$ 4 mm
Installation	non-flush
Assured operating distance	$s_a$ 0 ... 3.24 mm
Reduction factor $r_{AI}$	0.3
Reduction factor $r_{Cu}$	0.2
Reduction factor $r_{304}$	0.7
Output type	2-wire

### Nominal ratings

Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	f	0 ... 2000 Hz
Hysteresis	H	typ. 5 %
Current consumption		
Measuring plate not detected		$\geq 3$ mA
Measuring plate detected		$\leq 1$ mA
Switching state indicator		LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	1735 a
Mission Time ( $T_M$ )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

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

Connection type	cable PVC , 130 mm
Core cross-section	0.14 mm <sup>2</sup>
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67
Cable	
Bending radius	> 10 x cable diameter

### General information

Use in the hazardous area	see instruction manuals
Category	1G; 2G; 1D

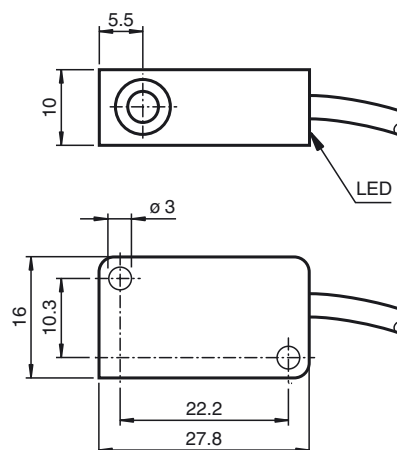
### Compliance with standards and directives

Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility	NE 21:2007
Standards	EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012

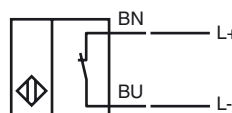
### Approvals and certificates

FM approval	
Control drawing	116-0165F
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V


## Dimensions




## Electrical Connection




**Equipment protection level Ga**

CE marking	CE 0102	
ATEX marking	 II 1G Ex ia IIC T6...T1 Ga 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	NCN4-V3-N0...	
Effective internal inductivity	$C_i$	$\leq 100 \text{ nF}$ ; 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.
Ambient temperature	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 EC-type examination certificate. <b>Note:</b> Use the temperature table for category 1 !!! The 20 % reduction in accordance with EN 1127-1 has already been applied to the temperature table for category 1.	

**Equipment protection level Gb**

CE marking	CE 0102	
ATEX marking	 II 1G Ex ia IIC T6...T1 Ga 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	NCN4-V3-N0...	
Effective internal inductivity	$C_i$	$\leq 100 \text{ nF}$ ; 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 $T_{amb}$	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 EC-type examination certificate.	

**Equipment protection level Da**

CE marking	CE 0102	
ATEX marking	 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	NCN4-V3-N0...	
Effective internal inductivity	$C_i$	$\leq 100 \text{ nF}$ ; 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.