



## Model Number

NCN3-F25F-N4-V1

## Features

- For installation in housing
- Direct mounting on standard actuators
- EC-Type Examination Certificate TÜV99 ATEX 1479X

## Accessories

### BT32

Activator for F25 series

### BT32XAS

Activator for F25 series

### BT33

Activator for F25 series

### BT34

Activator for F25 series

### V1-G

Female connector, M12, 4-pin, field attachable

### V1-G-N4-5M-PUR

Female cordset, M12, 4-pin, NAMUR, PUR cable

## Technical Data

### General specifications

Switching function		2 x normally closed (NC)
Output type		NAMUR
Rated operating distance	$s_n$	3 mm
Installation		flush mountable
Assured operating distance	$s_a$	0 ... 2.43 mm
Actual operating distance	$s_r$	2.7 ... 3.3 mm typ.
Reduction factor $r_{AI}$		0.5
Reduction factor $r_{CU}$		0.45
Reduction factor $r_{304}$		1
Reduction factor $r_{Si37}$		1.1
Output type		2-wire

### Nominal ratings

Nominal voltage	$U_o$	8.2 V ( $R_i$ approx. 1 k $\Omega$ )
Switching frequency	$f$	0 ... 1500 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		yes
Suitable for 2:1 technology		yes, Reverse polarity protection diode not required
Current consumption		
Measuring plate not detected		$\geq 3$ mA
Measuring plate detected		$\leq 1$ mA
No-load supply current	$I_o$	$\leq 3$ mA
Time delay before availability	$t_v$	$\leq 1$ ms
Switching state indicator		LED, yellow

### Functional safety related parameters

MTTF <sub>d</sub>	2114 a
Mission Time ( $T_M$ )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

Ambient temperature	-25 ... 100 °C (-13 ... 212 °F)
Storage temperature	-40 ... 100 °C (-40 ... 212 °F)

### Mechanical specifications

Connection type	Connector M12 x 1, 4-pin
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67
Tightening torque, fastening screws	M5 x 25 : 2.7 Nm
Note	Mounted on mechanical drive

### General information

Use in the hazardous area	see instruction manuals
Category	1G; 2G; 3G

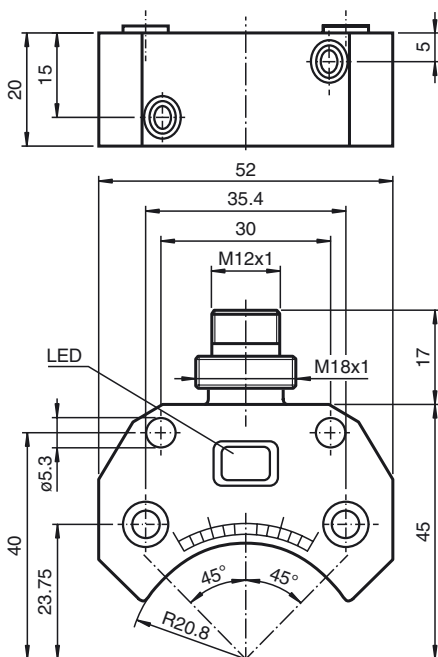
### Compliance with standards and directives

Standard conformity	
NAMUR	EN 60947-5-6:2000 IEC 60947-5-6:1999
Electromagnetic compatibility	NE 21:2007
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

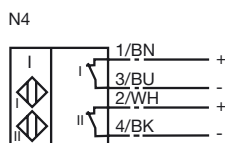
### Approvals and certificates

FM approval	
Control drawing	116-0165
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	
Effective internal inductivity	$C_i$	$\leq 100$ nF A cable length of 10 m is considered. The value is applicable for one sensor circuit.
Effective internal inductance	$L_i$	$\leq 100$ $\mu$ H A cable length of 10 m is considered. The value is applicable for one sensor circuit.
Highest permissible ambient temperature	Depending on the temperature class, the temperature ranges can be taken from the EU-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	
Effective internal inductivity	$C_i$	$\leq 100$ nF ; a cable length of 10 m is considered. The value is applicable for one sensor circuit.
Effective internal inductance	$L_i$	$\leq 100$ $\mu$ H ; a cable length of 10 m is considered. The value is applicable for one sensor circuit.
Maximum permissible ambient temperature $T_{amb}$	Depending on the temperature class, the temperature ranges can be taken from the EU-type examination certificate.	

Equipment protection level Gc (ic)

CE marking	CE	
Effective internal inductivity	$C_i$	$\leq 100$ nF A cable length of 10 m is considered. The value applies to a sensor circuit.
Effective internal inductance	$L_i$	$\leq 100$ $\mu$ H A cable length of 10 m is considered. The value applies to a sensor circuit.

Equipment protection level Gc (nL)

Standard conformity	EN 60079-15:2003 Ignition protection category "n" Use is restricted to the following stated conditions	
General	The apparatus has to be operated according to the appropriate data in the data sheet and in this instruction manual. The data stated in the data sheet are restricted by this operating instruction! The special conditions must be observed!	

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