



## Model Number

NBB6-F-B3B

## Features

- Basic series
- NO/NC selectable
- Degree of protection IP67
- Oscillator monitoring

## Technical Data

### General specifications

Switching function		Normally open/closed (NO/NC) programmable
Output type		AS-Interface
Rated operating distance	$s_n$	6 mm
Installation		flush
Assured operating distance	$s_a$	0 ... 4.86 mm
Reduction factor $r_{AI}$		0.28
Reduction factor $r_{Cu}$		0.25
Reduction factor $r_{304}$		0.75
Slave type		A/B slave
AS-Interface specification		V3.0
Required master specification		$\geq V2.1$
Output type		2-wire

### Nominal ratings

Operating voltage	$U_B$	26.5 ... 31.9 V via AS-i bus system
Switching frequency	$f$	$\geq 500$ (P3=0), $\geq 100$ (P3=1)
Hysteresis	$H$	typ. 5 %
Operating current	$I_L$	20 mA
Time delay before availability	$t_v$	$\leq 1000$ ms

### Functional safety related parameters

MTTF <sub>d</sub>		532 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %

### Indicators/operating means

LED POWER		AS-Interface voltage; LED green
LED IN		switching state (input); LED yellow
LED OUT		Dual LED yellow/red yellow: switching state red: error mode

### Electrical specifications

Rated operating voltage	$U_e$	26.5 ... 31.6 V from AS-Interface
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### Ambient conditions

Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)

### Mechanical specifications

Connection type		cable PVC , 2 m
Core cross-section		0.34 mm <sup>2</sup>
Housing material		PBT
Degree of protection		IP67
Mass		90 g

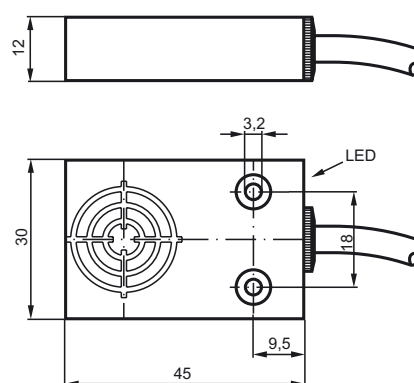
### Compliance with standards and directives

Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007 EN 50295:1999

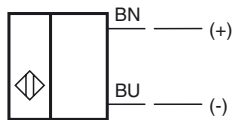
### Approvals and certificates

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



## Programming instructions

Address	00 preset, alterable via Busmaster or programming units
IO-code	0
ID-code	A
ID1-code	7
ID2-code	E

## Data bit

Bit	Function
D0	switching state
D1	not used
D2	oscillator monitoring
D3	not used

## Parameterbit

Bit	Function
P0	Pulse extension P0 = 1 : 10 ms* P0 = 0 : Without
P1	switching element function NO* / NC
P2	not used
P3	not used

\* Standard setting

## Fault mode

- No communication  
Red LED On  
Green LED On
- Address 0 set  
Red LED On  
Green LED flashes