

# Inductive sensor

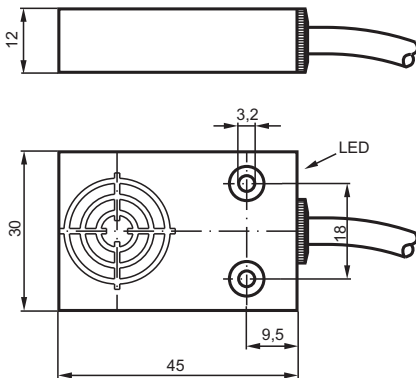
## NBB6-F-B3



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



### Dimensions



### Technical Data

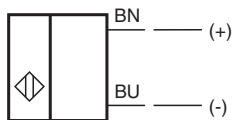
#### General specifications

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 $r_{Al}$		0.28
Reduction factor $r_{Cu}$		0.25
Reduction factor $r_{304}$		0.75
Slave type		Standard slave
AS-Interface specification		V2.1
Required master specification		$\geq$ V2.1
Output type		2-wire

## Technical Data

Nominal ratings		
Operating voltage	$U_B$	26.5 ... 31.9 V via AS-i bus system
Switching frequency	$f$	$\geq 500$ (P3=0),
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>		1873 a
Mission Time (T <sub>M</sub> )		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
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
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

## Connection



## Additional Information

### Programming instructions

Address 00 preset, alterable via  
Busmaster or  
programming units

IO-code 1  
ID-code 1  
ID1-code F  
ID2-code F

### Data bit

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

### Parameterbit

Bit	Function
P0	not used
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