

# Inductive sensor

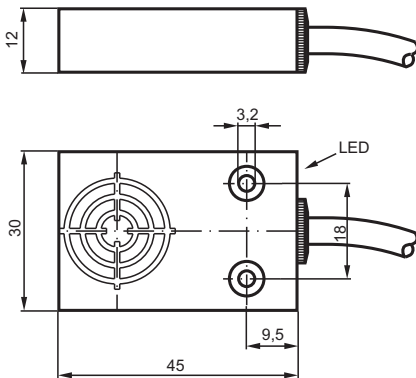
## NBB6-F-B3



- 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
Node type		Standard node
AS-Interface specification		V2.1
Required gateway specification		$\geq$ V2.1
Output type		2-wire

#### Nominal ratings

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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

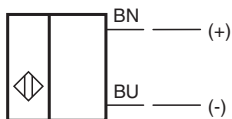
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

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## Technical Data

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
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		1873 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
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
<b>Electrical specifications</b>		
Rated operating voltage	$U_e$	26.5 ... 31.6 V from AS-Interface
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007 EN 50295:1999
<b>Approvals and certificates</b>		
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
<b>Ambient conditions</b>		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
<b>Mechanical specifications</b>		
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