



**Model Number**

**NBB6-F-B3**

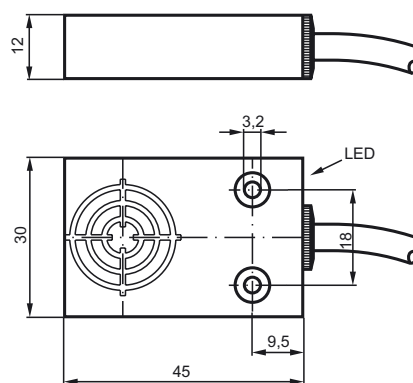
**Features**

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

**Technical Data**

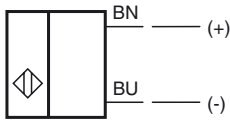
<b>General specifications</b>	
Switching function	Normally open/closed (NO/NC) programmable
Output type	AS-Interface
Rated operating distance	$s_n$ 6 mm
Installation	flush
Assured operating distance	$s_a$ 0 ... 4.86 mm
Reduction factor $r_{AI}$	0.28
Reduction factor $r_{Cu}$	0.25
Reduction factor $r_{304}$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

**Dimensions**



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## Electrical Connection

**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