



### Model Number

**NBB2-F76-E2-0,5M**

### Features

- 2 mm flush
- 3-wire DC

### Description

#### Caution:

The diameter of any countersink on the on-site M3 threaded hole must not be greater than 3.2 mm. Only in this way is the shouldering of the sensor's metal insert bushing guaranteed.

## Technical Data

### General specifications

Switching function	Normally open (NO)
Output type	PNP
Rated operating distance	$s_n$ 2 mm
Installation	flush
Output polarity	DC
Assured operating distance	$s_a$ 0 ... 1.62 mm
Reduction factor $r_{Al}$	0.25
Reduction factor $r_{Cu}$	0.2
Reduction factor $r_{304}$	0.63
Reduction factor $r_{Brass}$	0.31
Output type	3-wire

### Nominal ratings

Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 1500 Hz
Hysteresis	$H$	typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 3$ V
Operating current	$I_L$	0 ... 100 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 10 $\mu$ A at 25 °C
No-load supply current	$I_0$	$\leq 15$ mA
Switching state indicator		LED yellow

### Functional safety related parameters

MTTF <sub>d</sub>	1056 a
Mission Time ( $T_M$ )	20 a
Diagnostic Coverage (DC)	0 %

### Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
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### Mechanical specifications

Connection type	cable PVC, 0.5 m
Core cross-section	3 x 0.09 mm <sup>2</sup>
Housing material	PC
Degree of protection	IP67
Cable	
Cable diameter	2.3 mm $\pm$ 0.2 mm
Bending radius	> 10 x cable diameter
Mass	5 g
Tightening torque, fastening screws	0.7 Nm

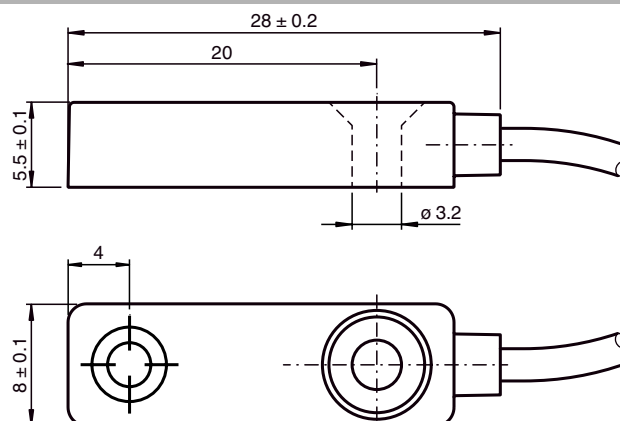
### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012

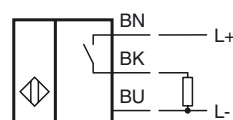
### Approvals and certificates

CCC approval	CCC approval / marking not required for products rated $\leq 36$ V
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## Dimensions



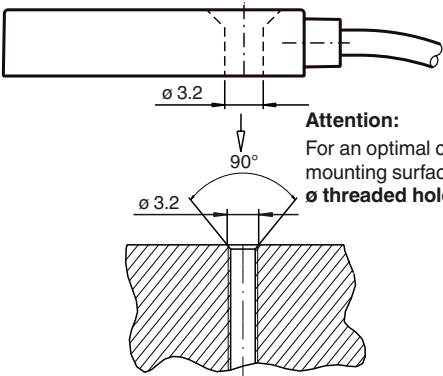
## Electrical Connection





Additional Information

Important Mounting Note



**Attention:**  
For an optimal connection of the sensor via its sleeve with the mounting surface, the following applies:  
**Ø threaded hole on mounting surface (countersink) < Ø sleeve**