

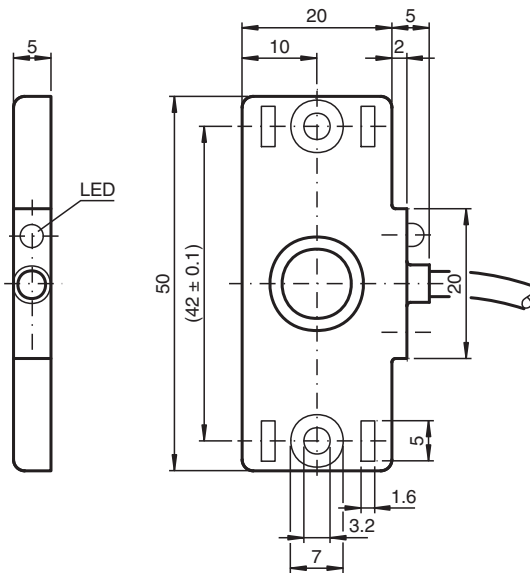
## Capacitive sensor

### CBN2-F46-E1

- 2 mm non-flush
- 3-wire DC
- Flat housing
- Mounting slots for cable ties
- Thru-holes for screw mounting



## Dimensions



## Technical Data

### General specifications

Switching function		Normally closed (NC)
Output type		NPN
Rated operating distance	$s_n$	2 mm
Installation		non-flush
Output polarity		DC
Assured operating distance	$s_a$	1 ... 1.4 mm
Output type		3-wire

### Nominal ratings

Installation conditions		
B		0 mm
C		5 mm
F		20 mm / 50 mm

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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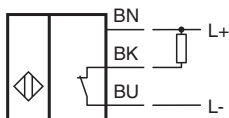
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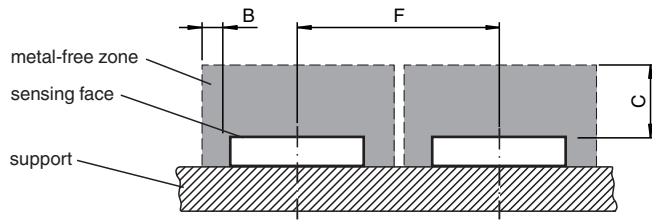
## Technical Data

Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	$f$	0 ... 10 Hz
Hysteresis	$H$	1 ... 10 typ. 5 %
Reverse polarity protection		reverse polarity protected
Short-circuit protection		pulsing
Voltage drop	$U_d$	$\leq 2$ V
Voltage drop at $I_L$		
Voltage drop $I_L = 10$ mA, switching element on	$U_d$	0.8 ... 2.2 V typ. 1.4 V
Operating current	$I_L$	0 ... 100 mA
Lowest operating current	$I_m$	0 mA
Off-state current	$I_r$	0 ... 0.5 mA typ. 0.01 mA
Off-state current $T_U = 40$ °C, switching element off		$\leq 100$ $\mu$ A
No-load supply current	$I_0$	$\leq 15$ mA
Time delay before availability	$t_v$	$\leq 50$ ms
Switching state indicator		LED, yellow
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		2940 a
Mission Time ( $T_M$ )		20 a
Diagnostic Coverage (DC)		0 %
<b>Compliance with standards and directives</b>		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007
<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		0.14 mm <sup>2</sup>
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67

## Connection



## Installation Conditions



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