



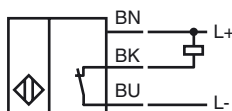
### Model Number

CBN2-F46-E1

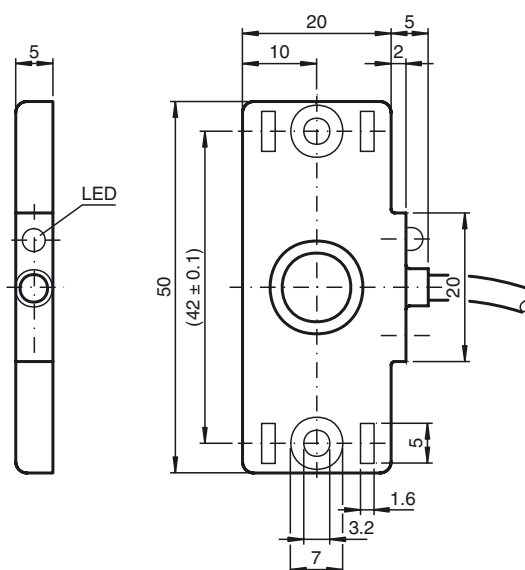
### Features

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

### Connection



### Dimensions



### Technical Data

#### General specifications

Switching element function	NPN	NC
Rated operating distance	$s_n$	2 mm
Installation	non-flush	
Output polarity	DC	
Assured operating distance	$s_a$	1 ... 1.4 mm

#### Nominal ratings

Installation conditions		
B	0 mm	
C	5 mm	
F	20 mm / 50 mm	
Operating voltage	$U_B$	10 ... 30 V DC
Switching frequency	f	0 ... 10 Hz
Hysteresis	H	1 ... 10 typ. 5 %
Reverse polarity protected	reverse polarity protected	
Short-circuit protection	pulsing	
Voltage drop	$U_d$	≤ 2 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
No-load supply current	$I_0$	≤ 15 mA
Indication of the switching state	LED, yellow	

#### Functional safety related parameters

MTTF <sub>d</sub>	2940 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

#### 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	0.14 mm <sup>2</sup>
Housing material	PBT
Sensing face	PBT
Protection degree	IP67

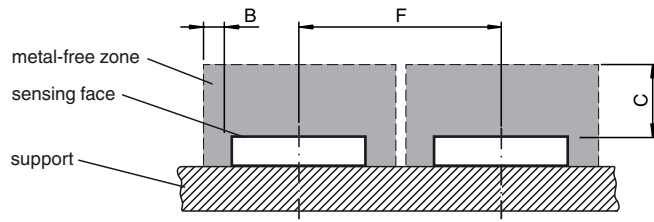
#### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

#### Approvals and certificates

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.

Installation conditions



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