



### Model Number

CBN5-F46-E2-Y320222

### Features

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

## Technical Data

### General specifications

Switching function	Normally open (NO)
Output type	PNP
Rated operating distance	$s_n$ 5 mm
Installation	non-flush
Output polarity	DC
Assured operating distance	$s_a$ 0 ... 3.5 mm
Output type	3-wire

### Nominal ratings

Installation conditions	
B	0 mm
C	10 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 protection	reverse polarity protected
Short-circuit protection	pulsing
Voltage drop	$U_d$ $\leq 2$ V
Design data	
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

### Functional safety related parameters

MTTF <sub>d</sub>	1200 a
Mission Time ( $T_M$ )	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 connector M12 x 1, 3-pin with PVC cable, L = 2 m
Core cross-section	0.14 mm <sup>2</sup>
Housing material	PBT
Sensing face	PBT
Degree of protection	IP67

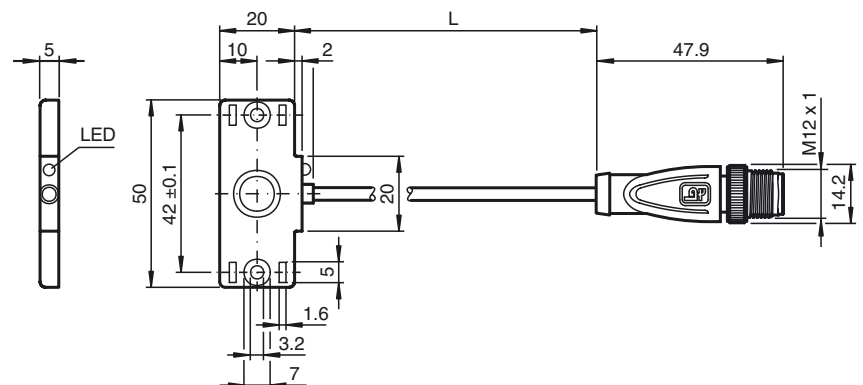
### Compliance with standards and directives

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

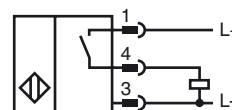
### Approvals and certificates

UL approval	cULus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

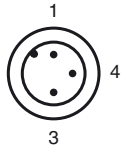
## Dimensions



## Electrical Connection



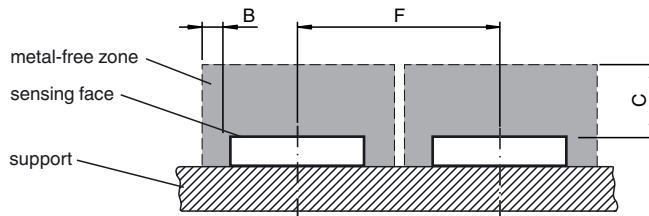
Pinout



Wire colors in accordance with EN 60947-5-2

1		BN	(brown)
3		BU	(blue)
4		BK	(black)

Installation Conditions



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