

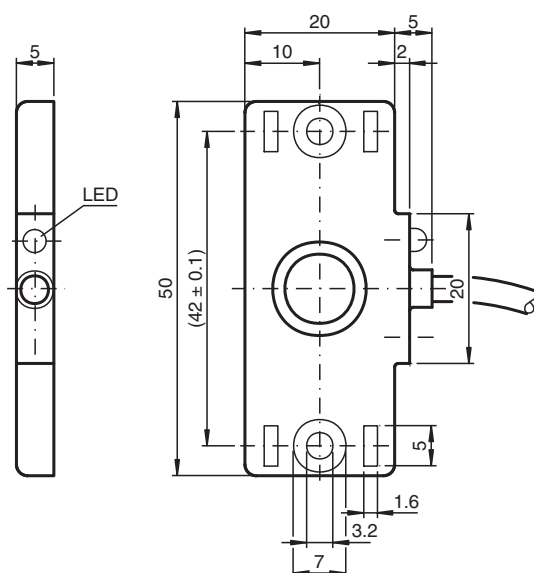
Capacitive sensor

CBN5-F46-E0-Y70121257

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



Dimensions



Technical Data

General specifications

Switching function		Normally open (NO)
Output type		NPN
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

Release date: 2025-02-27 Date of issue: 2025-02-28 Filename: 70121257_eng.pdf

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

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PEPPERL+FUCHS

Technical Data

Operating voltage	U_B	10 ... 30 V DC
Switching frequency	f	0 ... 50 Hz
Hysteresis	H	5 ... 15 % typ. 10 %
Reverse polarity protection		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. 0.04 mA
Off-state current $T_U = 40$ °C, switching element off		≤ 100 μ A
No-load supply current	I_0	≤ 15 mA
Time delay before availability	t_v	≤ 80 ms
Switching state indicator		LED, yellow

Compliance with standards and directives

Standard conformity		
Standards		EN IEC 60947-5-2

Approvals and certificates

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

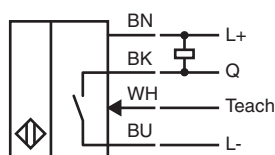
Ambient conditions

Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)

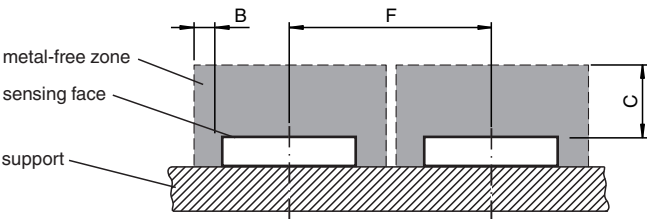
Mechanical specifications

Connection type		cable
Housing material		PBT
Sensing face		PBT
Degree of protection		IP67
Cable		
Wire end ferrules		yes
Cable diameter		3.5 mm \pm 0.2 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		grey
Number of cores		4
Core cross section		0.14 mm ²
Length	L	2 m
Mass		44 g
Dimensions		
Height		5 mm
Width		50 mm
Length		25 mm

Connection



Installation Conditions



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Teach-In

Teach-In Instructions

1. For Teach-In connect pin WH to pin L+ with target at desired distance for 2.5 s ... 5 s.
->LED is in green light mode.
2. Release connection between first (2.5 s) and second flash (5 s).
-> LED will flash (5 times in quick succession) if process is successful.

Note

Holding the connection 5 s ... 7.5 s resets the setting. If during Teach-In on product target is out of range (> 6 mm), LED (yellow light) will blink slowly 3 times. The taught sensing distance is stored in the sensor. The Teach-in value is still available when the power supply is turned off. The endurance of this non-volatile memory is rated for more than 100,000 teach-in repetitions.