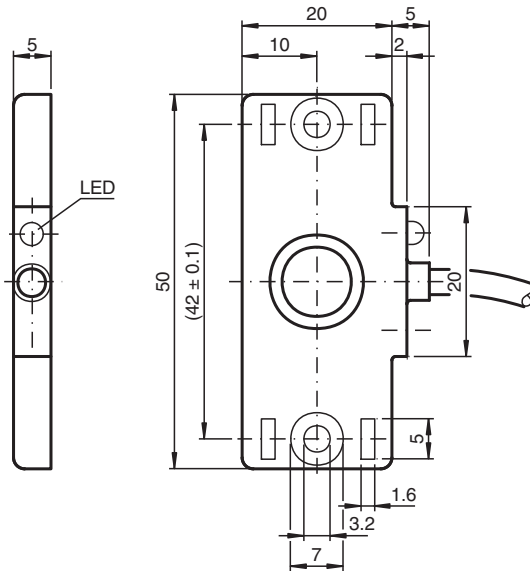


Capacitive sensor CBN5-F46-E0-Y70121257

- 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 |

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

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PF 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 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 ≤ 36 V |

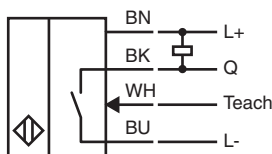
Ambient conditions

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

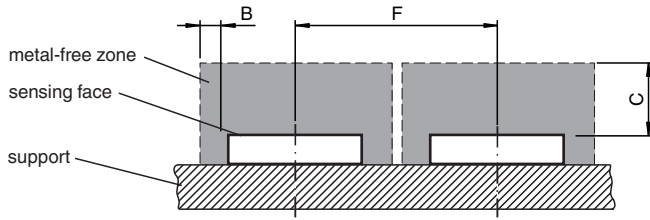
Mechanical specifications

| | | |
|----------------------|--|-----------------------|
| Connection type | | cable PVC , 2 m |
| Core cross section | | 0.14 mm ² |
| Housing material | | PBT |
| Sensing face | | PBT |
| Degree of protection | | IP67 |
| Cable | | |
| Cable diameter | | 3.5 mm \pm 0.2 mm |
| Bending radius | | > 10 x cable diameter |
| Mass | | 44 g |

Connection



Installation Conditions



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 **PEPPERL+FUCHS**

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.