

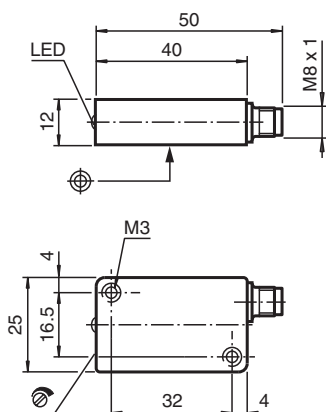


## Capacitive sensor CBN15-F64-A2-V31

- 15 mm non-flush
- Flat housing
- Switching distance adjustable between 2 mm ... 15 mm



### Dimensions



### Technical Data

#### General specifications

|                            |       |                  |
|----------------------------|-------|------------------|
| Switching function         |       | complementary    |
| Output type                |       | PNP              |
| Rated operating distance   | $s_n$ | 15 mm            |
| Installation               |       | non-flush        |
| Output polarity            |       | DC               |
| Assured operating distance | $s_a$ | 0 ... 10.8 mm    |
| Actual operating distance  | $s_r$ | 13.5 ... 16.5 mm |
| Output type                |       | 4-wire           |

#### Nominal ratings

|                             |       |                            |
|-----------------------------|-------|----------------------------|
| Installation conditions     |       |                            |
| B                           |       | 15 mm                      |
| C                           |       | 30 mm                      |
| F                           |       | 45 mm / 60 mm              |
| Operating voltage           | $U_B$ | 10 ... 30 V DC             |
| Switching frequency         | f     | 0 ... 100 Hz               |
| Hysteresis                  | H     | 1 ... 10 % typ. 5 %        |
| Reverse polarity protection |       | reverse polarity protected |

Release date: 2024-12-10 Date of issue: 2024-12-10 Filename: 263267\_eng.pdf

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

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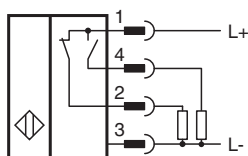
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**PEPPERL+FUCHS**

## Technical Data

|                                                 |       |                                                                            |
|-------------------------------------------------|-------|----------------------------------------------------------------------------|
| Short-circuit protection                        |       | pulsing<br>$I_{\max} \leq 500 \text{ mA}$                                  |
| Voltage drop                                    | $U_d$ | $\leq 2 \text{ V}$                                                         |
| Repeat accuracy                                 | R     | $\leq 1.5 \text{ mm}$                                                      |
| Operating current                               | $I_L$ | 0 ... 100 mA                                                               |
| Off-state current                               | $I_r$ | 0 ... 50 $\mu\text{A}$ typ. 5 $\mu\text{A}$                                |
| No-load supply current                          | $I_0$ | $\leq 15 \text{ mA}$                                                       |
| Switching state indicator                       |       | LED, yellow                                                                |
| <b>Functional safety related parameters</b>     |       |                                                                            |
| MTTF <sub>d</sub>                               |       | 941 a                                                                      |
| Mission Time (T <sub>M</sub> )                  |       | 20 a                                                                       |
| Diagnostic Coverage (DC)                        |       | 0 %                                                                        |
| <b>Indicators/operating means</b>               |       |                                                                            |
| Potentiometer                                   |       | sensitivity adjustment                                                     |
| <b>Compliance with standards and directives</b> |       |                                                                            |
| Standard conformity                             |       |                                                                            |
| Standards                                       |       | EN IEC 60947-5-2                                                           |
| <b>Approvals and certificates</b>               |       |                                                                            |
| UL approval                                     |       | cULus Listed, General Purpose                                              |
| CCC approval                                    |       | CCC approval / marking not required for products rated $\leq 36 \text{ V}$ |
| <b>Ambient conditions</b>                       |       |                                                                            |
| Ambient temperature                             |       | -25 ... 70 °C (-13 ... 158 °F)                                             |
| Storage temperature                             |       | -40 ... 85 °C (-40 ... 185 °F)                                             |
| Pollution degree                                |       | 3                                                                          |
| <b>Mechanical specifications</b>                |       |                                                                            |
| Connection type                                 |       | Connector plug                                                             |
| Housing material                                |       | PBT                                                                        |
| Sensing face                                    |       | PBT                                                                        |
| Degree of protection                            |       | IP67                                                                       |
| Connector                                       |       |                                                                            |
| Threading                                       |       | M8 x 1                                                                     |
| Number of pins                                  |       | 4                                                                          |
| Tightening torque, housing screws               |       | $\leq 2 \text{ Nm}$                                                        |
| Dimensions                                      |       |                                                                            |
| Height                                          |       | 12 mm                                                                      |
| Width                                           |       | 25 mm                                                                      |
| Length                                          |       | 40 mm                                                                      |
| Note                                            |       | Screw-in depth of housing screws, max. 8 mm                                |

## Connection



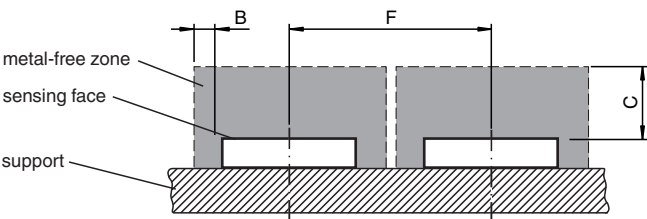
Connection Assignment



Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |

Installation Conditions



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