



Model Number

CBN5-F46-E2

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 | ≤ 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 | | ≤ 100 μ A |
| No-load supply current | I_0 | ≤ 15 mA |
| Time delay before availability | t_v | ≤ 50 ms |
| Switching state indicator | | LED, yellow |

Functional safety related parameters

| | |
|--------------------------|--------|
| MTTF _d | 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 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 |

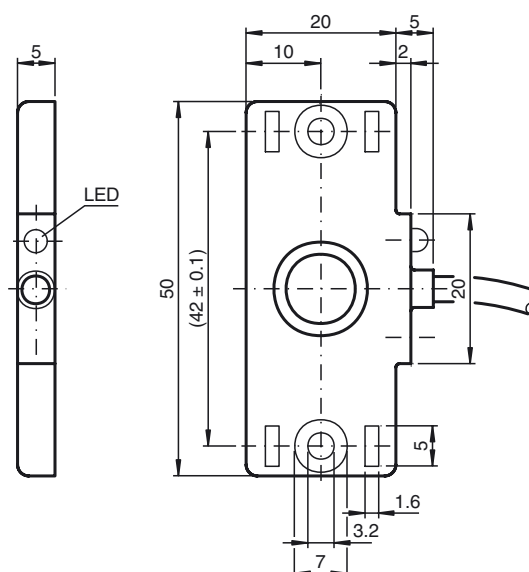
Compliance with standards and directives

| | |
|---------------------|---|
| 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 |

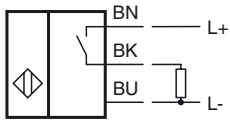
Approvals and certificates

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

Dimensions



Electrical Connection



Installation Conditions

