



Model Number

NCB50-FP-A2-C-P3-V1

Features

- 50 mm flush
- 3-wire DC
- Weld Immune
- Optimum use at a distance >50 cm

Accessories

V1-G

Female connector, M12, 4-pin, field attachable

V1-W

Female connector, M12, 4-pin, field attachable

V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

Technical Data

General specifications

| | | |
|----------------------------|-------|---------------|
| Switching element function | PNP | NO/NC |
| Rated operating distance | s_n | 50 mm |
| Installation | | flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 40.5 mm |
| Reduction factor r_{Al} | | 0.38 |
| Reduction factor r_{Cu} | | 0.35 |
| Reduction factor r_{304} | | 0.83 |

Nominal ratings

| | | |
|--------------------------------|-------|----------------------------|
| Operating voltage | U_B | 10 ... 60 V DC |
| Switching frequency | f | 0 ... 1 Hz |
| Hysteresis | H | typ. 3 % |
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | ≤ 3 V |
| Operating current | I_L | 0 ... 200 mA |
| Off-state current | I_r | 0 ... 0.5 mA |
| No-load supply current | I_0 | ≤ 20 mA |
| Time delay before availability | t_v | ≤ 1 s |
| Tuning-out | | ≥ 50 ms |
| Operating voltage indicator | | LED, green |
| Switching state indicator | | LED, yellow |

Functional safety related parameters

| | |
|--------------------------|-------|
| MTTF _d | 660 a |
| Mission Time (T_M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
|---------------------|--------------------------------|

Mechanical specifications

| | |
|----------------------|---------------------------------|
| Connection type | Connector M12 x 1, 4-pin |
| Housing material | PBT/metal |
| Sensing face | PBT, active surface PTFE coated |
| Housing base | metal |
| Degree of protection | IP68 |

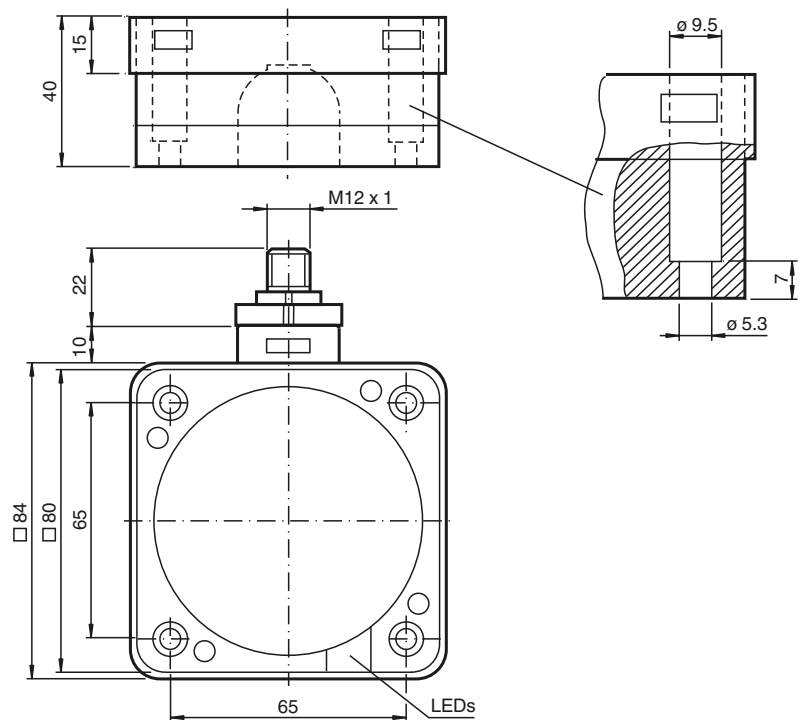
Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| Standards | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

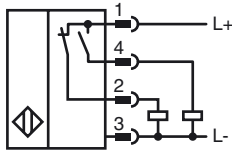
Approvals and certificates

| | |
|--------------|---|
| UL approval | cULus Listed, General Purpose |
| CSA approval | cCSAus Listed, General Purpose |
| CCC approval | Certified by China Compulsory Certification (CCC) |

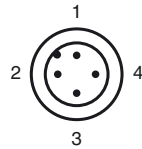
Dimensions



Electrical Connection



Pinout



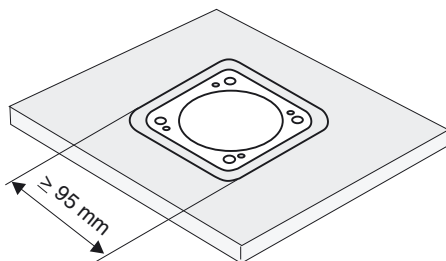
Wire colors in accordance with EN 60947-5-2

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

Installation Hint

These sensors are especially designed for embeddable mounting in conveyor floors. Due to its precise location in metal base plates the sensor is afforded a high degree of mechanical protection. No clearance is required between the sensor and the base plate, avoiding the need for protective guarding to prevent possible foot injury.

The large sensing range ensures positive detection, and thus provides consistent control and monitoring of the conveyor.



Warning!
Once the metal screening has been removed, the sensor can no longer be embeddable mounted.

Release date: 2015-10-06 14:38 Date of issue: 2015-10-06 127200_eng.xml