

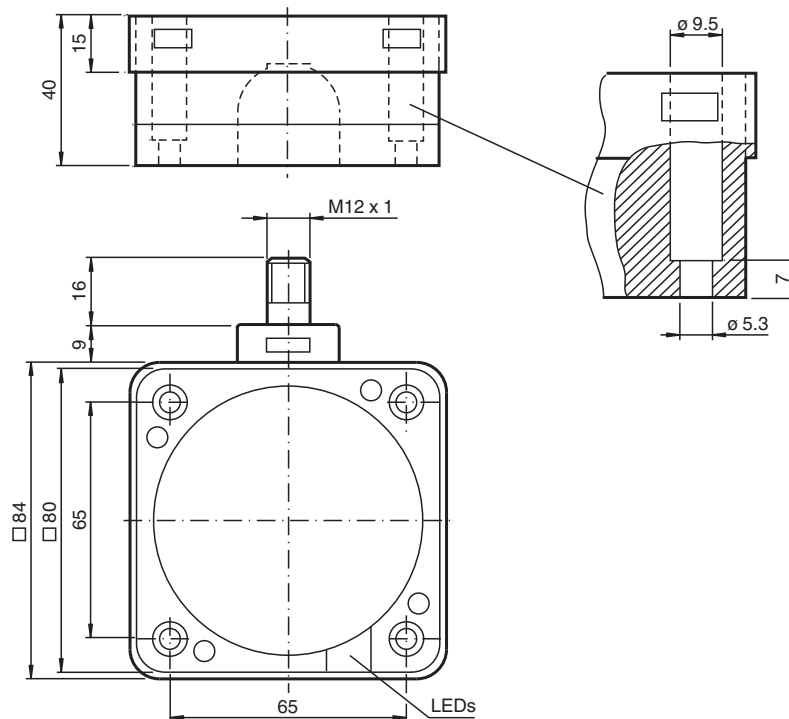


Inductive sensor NCB50-FP-E2-P1-V1

- 50 mm flush
- 3-wire DC



Dimensions



Technical Data

General specifications

| | | |
|----------------------------|-------|--------------------|
| Switching function | | Normally open (NO) |
| Output type | | PNP |
| Rated operating distance | s_n | 50 mm |
| Installation | | flush |
| Output polarity | | DC |
| Assured operating distance | s_a | 0 ... 40.5 mm |
| Reduction factor r_{AI} | | 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 ... 80 Hz |
| Hysteresis | H | typ. 3 % |

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

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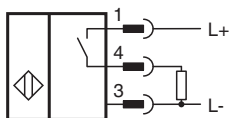
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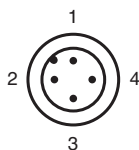
Technical Data

| | | |
|---|-------|---|
| Reverse polarity protection | | reverse polarity protected |
| Short-circuit protection | | pulsing |
| Voltage drop | U_d | $\leq 3 \text{ V}$ |
| Operating current | I_L | 0 ... 200 mA |
| Off-state current | I_r | 0 ... 0.5 mA |
| No-load supply current | I_0 | $\leq 20 \text{ mA}$ |
| Time delay before availability | t_v | $\leq 300 \text{ ms}$ |
| Operating voltage indicator | | LED, green |
| Switching state indicator | | LED, yellow |
| Functional safety related parameters | | |
| MTTF _d | | 940 a |
| Mission Time (T _M) | | 20 a |
| Diagnostic Coverage (DC) | | 0 % |
| Compliance with standards and directives | | |
| Standard conformity | | |
| Standards | | EN 60947-5-2:2007 IEC 60947-5-2:2007 |
| Approvals and certificates | | |
| EAC conformity | | TR CU 020/2011 |
| UL approval | | cULus Listed, General Purpose |
| CSA approval | | cCSAus Listed, General Purpose |
| CCC approval | | Certified by China Compulsory Certification (CCC) |
| Ambient conditions | | |
| Ambient temperature | | -25 ... 70 °C (-13 ... 158 °F) |
| Mechanical specifications | | |
| Connection type | | Connector M12 x 1 , 4-pin |
| Housing material | | PBT |
| Sensing face | | PBT |
| Housing base | | PBT |
| Degree of protection | | IP68 |

Connection



Connection Assignment



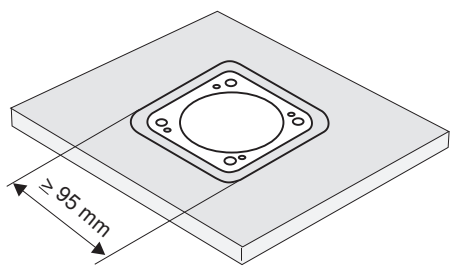
Wire colors in accordance with EN 60947-5-2

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

Mounting



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.

Accessories

| | | |
|---|-------------|---------------------------------------|
|  | V1-W-2M-PUR | Female cordset, M12, 4-pin, PUR cable |
|  | V1-G-2M-PUR | Female cordset, M12, 4-pin, PUR cable |

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