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DATA SHEET

# IME12-04BPSZT0KP01

IME  
Inductive proximity sensors

**SICK** Sensor Intelligence

## INDUCTIVE PROXIMITY SENSORS

## IME12-04BPSZT0KP01

## ORDERING INFORMATION

| Type               | part no. |
|--------------------|----------|
| IME12-04BPSZT0KP01 | 1046196  |

Further device versions and accessories at [www.sick.com/IME](http://www.sick.com/IME)



Illustration may differ



## DETAILED TECHNICAL DATA

## FEATURES

|                          |  |
|--------------------------|--|
| Housing                  | Metric   |
| Housing                  | Short-body   |
| Thread size              | M12 x 1  |
| Diameter                 | Ø 12 mm  |
| Sensing range $S_n$      | 4 mm   |
| Safe sensing range $S_s$ | 3.24 mm  |
| Installation type        | Flush  |
| Switching frequency      | 2,000 Hz   |
| Connection type          | Connector M8, 3-pin  |
| Switching output         | PNP  |
| Switching output detail  | PNP  |
| Output function          | NO   |
| Electrical wiring        | DC 3-wire  |
| Enclosure rating         | IP67 <sup>1)</sup>   |
| Special characteristic   | Cap color = black<br>50 pieces per pack                                      |
| Items supplied           | IME12-04BPSZT0K #1042973 (50 x)<br>Mounting nut, brass, nickel-plated (100x) |

<sup>1)</sup> According to EN 60529.

**MECHANICS/ELECTRONICS**

|  |                                      |
|--|--------------------------------------|
| Supply voltage                         | 10 V DC ... 30 V DC                  |
| Ripple                                 | ≤ 10 %                               |
| Voltage drop                           | ≤ 2 V <sup>1)</sup>                  |
| Time delay before availability         | ≤ 100 ms                             |
| Hysteresis                             | 5 % ... 15 %                         |
| Reproducibility                        | ≤ 2 % <sup>2)</sup><br><sup>3)</sup> |
| Temperature drift (of S <sub>i</sub> ) | ± 10 %                               |
| EMC                                    | According to EN 60947-5-2            |
| Continuous current I <sub>a</sub>      | ≤ 200 mA                             |
| No load current                        | ≤ 10 mA                              |
| Short-circuit protection               | ✓                                    |
| Power-up pulse protection              | ✓                                    |
| Shock and vibration resistance         | 30 g, 11 ms/10 Hz ... 55 Hz, 1 mm    |
| Ambient operating temperature          | -25 °C ... +75 °C                    |
| Housing material                       | Brass, nickel-plated                 |
| Sensing face material                  | Plastic, PA 66                       |
| Housing length                         | 44 mm                                |
| Thread length                          | 28 mm                                |
| Tightening torque, max.                | ≤ 12 Nm                              |
| UL File No.                            | NRKH.E181493                         |

<sup>1)</sup> At I<sub>a</sub> max.

<sup>2)</sup> Supply voltage U<sub>s</sub> and constant ambient temperature T<sub>a</sub>.

<sup>3)</sup> Of S<sub>r</sub>.

**SAFETY-RELATED PARAMETERS**

|                               |             |
|-------------------------------|-------------|
| MTTF <sub>D</sub>             | 1,735 years |
| DC <sub>avg</sub>             | 0 %         |
| T <sub>M</sub> (mission time) | 20 years    |

**REDUCTION FACTORS**

|                            |  |
|----------------------------|--|
| Note                       | The values are reference values which may vary |
| St37 steel (Fe)            | 1  |
| Stainless steel (V2A, 304) | Approx. 0.8                                    |
| Aluminum (Al)              | Approx. 0.45                                   |
| Copper (Cu)                | Approx. 0.4                                    |
| Brass (Br)                 | Approx. 0.4                                    |

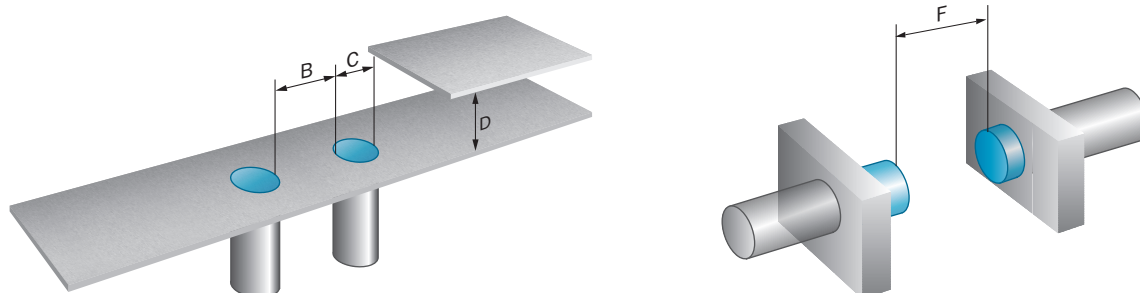
**INSTALLATION NOTE**

|        |                                       |
|--------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| B      | 24 mm                                 |
| C      | 12 mm                                 |
| D      | 12 mm                                 |
| F      | 32 mm                                 |

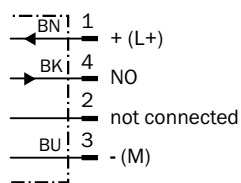
**CERTIFICATES**

|                                    |   |
|------------------------------------|---|
| EU declaration of conformity       | ✓ |
| UK declaration of conformity       | ✓ |
| ACMA declaration of conformity     | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS                         | ✓ |
| cULus certificate                  | ✓ |

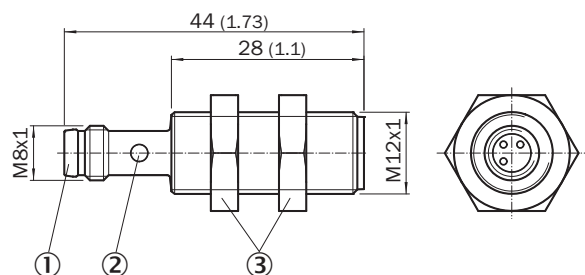
**INSTALLATION NOTE FLUSH INSTALLATION**



**CONNECTION DIAGRAM CD-007**



**DIMENSIONAL DRAWING IME12 SHORT-BODY HOUSING, CONNECTOR, FLUSH**



Dimensions in mm (inch)

- ① Connection
- ② Display LED
- ③ Fastening nuts (2x); width across 17, metal

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at [www.sick.com/1046196](http://www.sick.com/1046196)



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Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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