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DATA SHEET

# IME12-02BPSZC0S

IME
Inductive proximity sensors

SICK Sensor Intelligence



Illustration may differ

# INDUCTIVE PROXIMITY SENSORS

# IME12-02BPSZC0S

## ORDERING INFORMATION

| Type | part no. |
|---|---|
| IME12-02BPSZC0S | 1040732 |

Further device versions and accessories at www.sick.com/IME

## DETAILED TECHNICAL DATA

### FEATURES

| | |
|---|---|
| Housing | Metric |
| Housing | Standard design |
| Thread size | M12 x 1 |
| Diameter | Ø 12 mm |
| Sensing range $S_n$ | 2 mm |
| Safe sensing range $S_a$ | 1.62 mm |
| Installation type | Flush |
| Switching frequency | 2,000 Hz |
| Connection type | Male connector M12, 4-pin |
| Switching output | PNP |
| Switching output detail | PNP |
| Output function | NO |
| Electrical wiring | DC 3-wire |
| Enclosure rating | IP67 [1] |
| Special characteristic | Extended operating temperature |
| Items supplied | Mounting nut, brass, nickel-plated (2x) |

[1] According to EN 60529.

### MECHANICS/ELECTRONICS

| | |
|---|---|
| Supply voltage | 10 V DC ... 30 V DC |
| Ripple | ≤ 10 % |
| Voltage drop | ≤ 2 V [1] |

[1] At $I_a$ max.

[2] Supply voltage $U_B$ and constant ambient temperature Ta.

[3] Of Sr.

| | |
|---|---|
| Time delay before availability | ≤ 100 ms |
| Hysteresis | 5 % ... 15 % |
| Reproducibility | ≤ 2 % [2] [3] |
| Temperature drift (of $S_r$) | ± 10 % |
| EMC | According to EN 60947-5-2 |
| Continuous current $I_a$ | ≤ 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 | –30 °C ... +75 °C |
| Housing material | Brass, nickel-plated |
| Sensing face material | Plastic, PA 66 |
| Housing length | 65 mm |
| Thread length | 48 mm |
| Tightening torque, max. | ≤ 12 Nm |
| UL File No. | NRKH.E181493 |

[1] At $I_a$ max.

[2] Supply voltage $U_B$ and constant ambient temperature Ta.

[3] Of Sr.

## SAFETY-RELATED PARAMETERS

| | |
|---|---|
| $MTTF_D$ | 1,735 years |
| $DC_{avg}$ | 0 % |

## 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

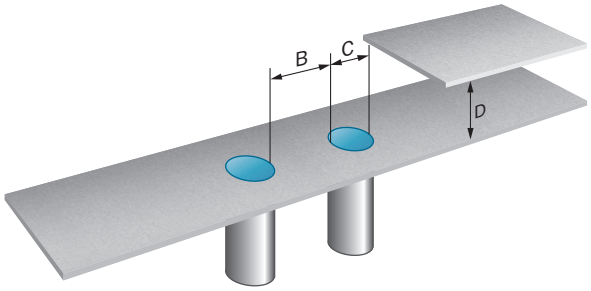
| | |
|---|---|
| Remark | Associated graphic see "Installation note" |
| B | 12 mm |
| C | 12 mm |
| D | 6 mm |
| F | 16 mm |

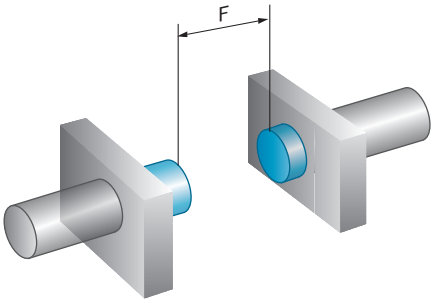
## CERTIFICATES

| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |

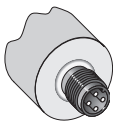
| | |
|---|---|
| China RoHS | ✓ |
| China Compulsory Product Certification (CCC) exempt | ✓ |
| cULus certificate | ✓ |

## INSTALLATION NOTE FLUSH INSTALLATION

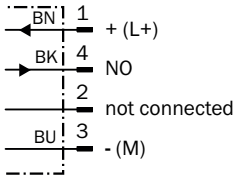


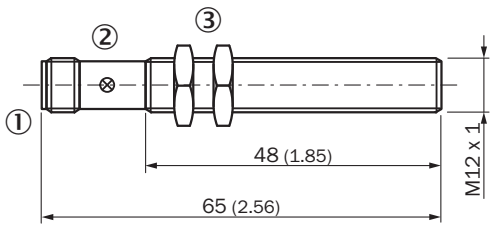

## CONNECTION TYPE



## CONNECTION DIAGRAM CD-007




## DIMENSIONAL DRAWING IME12 STANDARD, 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/1040732

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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

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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