

# IME12-04NPSZW5K

**INDUCTIVE PROXIMITY SENSORS** 



### Ordering information

| Туре            | Part no. |
|-----------------|----------|
| IME12-04NPSZW5K | 1042725  |

Included in delivery: BEF-MU-M12 (1)

Other models and accessories → www.sick.com/IME





#### Detailed technical data

#### **Features**

| Housing                           | Cylindrical thread design               |
|-----------------------------------|---|
| Housing                           | Short-body                              |
| Thread size                       | M12 x 1                                 |
| Diameter                          | Ø 12 mm                                 |
| Sensing range S <sub>n</sub>      | 4 mm                                    |
| Safe sensing range S <sub>a</sub> | 3.24 mm                                 |
| Installation type                 | Non-flush                               |
| Switching frequency               | 2,000 Hz                                |
| Connection type                   | Cable, 3-wire, 5 m                      |
| Switching output                  | PNP                                     |
| Output function                   | NO                                      |
| Electrical wiring                 | DC 3-wire                               |
| Enclosure rating                  | IP67 <sup>1)</sup>                      |
| Items supplied                    | Mounting nut, brass, nickel-plated (2x) |

<sup>&</sup>lt;sup>1)</sup> According to EN 60529.

#### Mechanics/electronics

| Supply voltage                 | 10 V DC 30 V DC    |
|--------------------------------|--------------------|
| Ripple                         | ≤ 10 %             |
| Voltage drop                   | $\leq$ 2 V $^{1)}$ |
| Time delay before availability | ≤ 100 ms           |

<sup>1)</sup> At L may

 $<sup>^{\</sup>rm 2)}$  Supply voltage Ub and constant ambient temperature Ta.

<sup>3)</sup> Of Sr.

| Hysteresis                             | 5 % 15 %                      |
|--|-------------------------------|
| Reproducibility                        | ≤ 2 % <sup>2) 3)</sup>        |
| Temperature drift (of S <sub>r</sub> ) | ± 10 %                        |
| EMC                                    | According to EN 60947-5-2     |
| Continuous current I <sub>a</sub>      | ≤ 200 mA                      |
| No load current                        | ≤ 10 mA                       |
| Cable material                         | PVC                           |
| Conductor size                         | 0.25 mm <sup>2</sup>          |
| Cable diameter                         | Ø 3.9 mm                      |
| Short-circuit protection               | ✓                             |
| Reverse polarity 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                          | 24 mm                         |
| Tightening torque, max.                | ≤ 12 Nm                       |
| UL File No.                            | NRKH.E181493                  |

 $<sup>^{1)}</sup>$  At I $_{\rm a}$  max.

# Safety-related parameters

| MTTF <sub>D</sub> | 1,735 years |
|-------------------|-------------|
| DC <sub>avg</sub> | 0 %         |

#### Reduction factors

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

#### Installation note

| Remark | Associated graphic see "Installation" |
|--------|---------------------------------------|
| A      | 12 mm                                 |
| В      | 24 mm                                 |
| C      | 12 mm                                 |
| D      | 12 mm                                 |
| E      | 8 mm                                  |
| F      | 32 mm                                 |

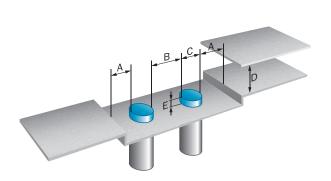
 $<sup>^{2)}</sup>$  Supply voltage Ub and constant ambient temperature Ta.  $^{3)}$  Of Sr.

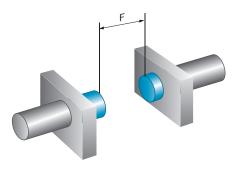
#### Classifications

| ECLASS 5.0     | 27270101 |
|----------------|----------|
|                |          |
| ECLASS 5.1.4   | 27270101 |
| ECLASS 6.0     | 27270101 |
| ECLASS 6.2     | 27270101 |
| ECLASS 7.0     | 27270101 |
| ECLASS 8.0     | 27270101 |
| ECLASS 8.1     | 27270101 |
| ECLASS 9.0     | 27270101 |
| ECLASS 10.0    | 27270101 |
| ECLASS 11.0    | 27270101 |
| ECLASS 12.0    | 27274001 |
| ETIM 5.0       | EC002714 |
| ETIM 6.0       | EC002714 |
| ETIM 7.0       | EC002714 |
| ETIM 8.0       | EC002714 |
| UNSPSC 16.0901 | 39122230 |

### Installation note

Non-flush installation





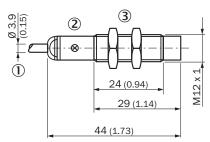
# Connection diagram

Cd-001



## Dimensional drawing (Dimensions in mm (inch))

IME12 Short-body housing, cable, non-flush



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

#### Recommended accessories

Other models and accessories → www.sick.com/IME

|                                 | Brief description   | Туре        | Part no. |
|---------------------------------|---|-------------|----------|
| Mounting brackets and plates    |   |             |          |
| رانا                            | Mounting plate for M12 sensors, steel, zinc coated, without mounting hardware   | BEF-WG-M12  | 5321869  |
| 40                              | Mounting bracket for M12 sensors, steel, zinc coated, without mounting hardware   | BEF-WN-M12  | 5308447  |
| Terminal and alignment brackets |   |             |          |
|                                 | Clamping block for round sensors M12, without fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included $$ | BEF-KH-M12  | 2051479  |
|                                 | Clamping block for round sensors M12, with fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included       | BEF-KHF-M12 | 2051480  |

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We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is "Sensor Intelligence."

# **WORLDWIDE PRESENCE:**

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