

# IME08-02BPOVTOSS08

IME

**INDUCTIVE PROXIMITY SENSORS** 



#### Ordering information

| Туре               | part no. |
|--------------------|----------|
| IME08-02BPOVT0SS08 | 1048214  |

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

Illustration may differ



#### Detailed technical data

#### **Features**

| Housing                           | Metric                                 |
|-----------------------------------|--|
| Housing                           | Standard design                        |
| Thread size                       | M8 x 1                                 |
| Diameter                          | Ø 8 mm                                 |
| Sensing range S <sub>n</sub>      | 2 mm                                   |
| Safe sensing range S <sub>a</sub> | 1.62 mm                                |
| Installation type                 | Flush                                  |
| Switching frequency               | 4,000 Hz                               |
| Connection type                   | Connector M8, 3-pin                    |
| Switching output                  | PNP                                    |
| Switching output detail           | PNP                                    |
| Output function                   | NC                                     |
| Electrical wiring                 | DC 3-wire                              |
| Enclosure rating                  | IP65 <sup>1)</sup>                     |
| Special characteristic            | Continuous thread with 2 LEDs          |
| Items supplied                    | Mounting nut, V2A stainless steel (2x) |

 $<sup>^{1)}</sup>$  According to EN 60529.

#### Mechanics/electronics

| Supply voltage | 10 V DC 30 V DC |
|----------------|-----------------|
| Ripple         | ≤ 10 %          |

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

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

<sup>&</sup>lt;sup>3)</sup> Of Sr.

| Voltage drop                           | ≤ 2 V <sup>1)</sup>                        |
|--|--|
| Time delay before availability         | ≤ 100 ms                                   |
| Hysteresis                             | 5 % 15 %                                   |
| Reproducibility                        | ≤ 2 % <sup>2)</sup><br>3)                  |
| 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                                    |
| Short-circuit protection               | <b>√</b>                                   |
| 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                       | Stainless steel V2A, DIN 1.4305 / AISI 303 |
| Sensing face material                  | Plastic, PA 66                             |
| Housing length                         | 56 mm                                      |
| Thread length                          | 52 mm                                      |
| Tightening torque, max.                | ≤ 7 Nm                                     |
| UL File No.                            | NRKH.E181493                               |

 $<sup>^{1)}</sup>$  At  $I_a$  max.

#### Safety-related parameters

| MTTF <sub>D</sub>             | 1,735 years |
|-------------------------------|-------------|
| <b>DC</b> <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 (AI)              | Approx. 0.45                                   |
| Copper (Cu)                | Approx. 0.4                                    |
| Brass (Br)                 | Approx. 0.4                                    |

#### Installation note

| Remark | Associated graphic see "Installation" |
|--------|---------------------------------------|
| В      | 16 mm                                 |
| c      | 8 mm                                  |
| D      | 6 mm                                  |
| F      | 16 mm                                 |

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

<sup>&</sup>lt;sup>3)</sup> Of Sr.

# IME08-02BPOVT0SS08 | IME

#### INDUCTIVE PROXIMITY SENSORS

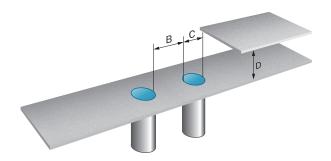
#### Certificates

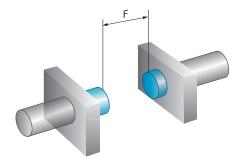
| EU declaration of conformity       | 1        |
|------------------------------------|----------|
| UK declaration of conformity       | 1        |
| ACMA declaration of conformity     | 1        |
| Moroccan declaration of conformity | 1        |
| China RoHS                         | 1        |
| cULus certificate                  | <b>✓</b> |

#### Classifications

| <b>S 5.0</b> 2727010     | 01 |
|--------------------------|----|
| <b>S 5.1.4</b> 2727010   | 21 |
| <b>S 6.0</b> 2727010     | 21 |
| <b>S 6.2</b> 2727010     | 21 |
| <b>S 7.0</b> 2727010     | 21 |
| <b>S 8.0</b> 2727010     | 21 |
| <b>S 8.1</b> 2727010     | 21 |
| <b>S 9.0</b> 2727010     | 21 |
| <b>\$ 10.0</b> 2727010   | 21 |
| <b>S 11.0</b> 2727010    | 21 |
| <b>S 12.0</b> 2727400    | 21 |
| .0 EC00272               | 4  |
| <b>.0</b> EC00272        | 4  |
| <b>.0</b> EC00272        | 4  |
| .0 EC00272               | 4  |
| <b>C 16.0901</b> 3912223 | 30 |

#### Installation note Flush installation

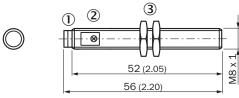




#### Connection diagram Cd-004



### Dimensional drawing IME08 Standard, connector, flush



Dimensions in mm (inch)

- ① Connection
- ② Display LED
- 3 Fastening nuts (2 x); width across 13, stainless steel V2A

#### Recommended accessories

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

|              | Brief description  | Туре        | part no. |
|--------------|--|-------------|----------|
| Mounting sys | tems   |             |          |
|              | Description: Clamping block for round sensors M8, with fixed stop     Material: Plastic     Details: Plastic (PA12), glass-fiber reinforced     Items supplied: Mounting hardware included                                       | BEF-KHF-M08 | 2051478  |
|              | <ul> <li>Description: Clamping block for round sensors M8, without fixed stop</li> <li>Material: Plastic</li> <li>Details: Plastic (PA12), glass-fiber reinforced</li> <li>Items supplied: Mounting hardware included</li> </ul> | BEF-KH-M08  | 2051477  |
|              | <ul> <li>Description: Mounting bracket for M8 sensors</li> <li>Material: Steel</li> <li>Details: Steel, zinc coated</li> <li>Items supplied: Without mounting hardware</li> </ul>  | BEF-WN-M08  | 5321721  |
| 613          | Description: Mounting plate for M8 sensors     Material: Steel     Details: Steel, zinc coated     Items supplied: Without mounting hardware   | BEF-WG-M08  | 5321722  |

|               | Brief description   | Туре                   | part no. |  |  |
|---------------|---|------------------------|----------|--|--|
| connectors ar | connectors and cables   |                        |          |  |  |
|               | <ul> <li>Connection type head A: Male connector, M8, 3-pin, straight, A-coded</li> <li>Description: Unshielded</li> <li>Connection systems: Screw-type terminals</li> <li>Permitted cross-section: 0.14 mm² 0.5 mm²</li> </ul>  | STE-0803-G             | 6037322  |  |  |
| We c          | <ul> <li>Connection type head A: Female connector, M8, 3-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 2 m, 3-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul>  | YF8U13-020VA1XLEAX     | 2095860  |  |  |
| · Co          | <ul> <li>Connection type head A: Female connector, M8, 3-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 5 m, 3-wire, PUR, halogen-free</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation</li> </ul> | YF8U13-050UA1XLEAX     | 2094788  |  |  |
| · ·           | <ul> <li>Connection type head A: Female connector, M8, 3-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 5 m, 3-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul>  | YF8U13-050VA1XLEAX     | 2095884  |  |  |
| No.           | <ul> <li>Connection type head A: Female connector, M8, 3-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 10 m, 3-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul>   | YF8U13-100VA1XLEAX     | 2095885  |  |  |
|               | <ul> <li>Connection type head A: Female connector, M8, 3-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 2 m, 3-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul>  | YG8U13-020VA1XLEAX     | 2096165  |  |  |
| 3             | <ul> <li>Connection type head A: Female connector, M8, 3-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 5 m, 3-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul>  | YG8U13-050VA1XLEAX     | 2096166  |  |  |
| 3             | Connection type head A: Female connector, M8, 3-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 3-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones  | YG8U13-100VA1XLEAX     | 2096209  |  |  |
| 0             | <ul> <li>Connection type head A: Female connector, M8, 3-pin, straight, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 0.6 m, 3-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul>  | YF8U13-<br>C60VA1XLEAX | 2146368  |  |  |
| 3             | <ul> <li>Connection type head A: Female connector, M8, 3-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 1 m, 3-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul>  | YG8U13-010VA1XLEAX     | 2146371  |  |  |
| 3             | Connection type head A: Female connector, M8, 3-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 3 m, 3-wire, PVC Description: Sensor/actuator cable, unshielded   | YG8U13-030VA1XLEAX     | 2146372  |  |  |

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|   | Brief description  | Туре                   | part no. |
|---|--|------------------------|----------|
|   | Application: Zones with chemicals, Uncontaminated zones  |                        |          |
| 3 | <ul> <li>Connection type head A: Female connector, M8, 3-pin, angled, A-coded</li> <li>Connection type head B: Flying leads</li> <li>Signal type: Sensor/actuator cable</li> <li>Cable: 0.6 m, 3-wire, PVC</li> <li>Description: Sensor/actuator cable, unshielded</li> <li>Application: Zones with chemicals, Uncontaminated zones</li> </ul> | YG8U13-<br>C60VA1XLEAX | 2146370  |

### SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

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For us, that is "Sensor Intelligence."

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