Data sheet

# IME08-2N5NSZT0K

IME

**INDUCTIVE PROXIMITY SENSORS**

SICK
Sensor Intelligence.

Illustration may differ

## Ordering information

| Type | part no. |
|---|---|
| IME08-2N5NSZT0K | 1040861 |

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

## Detailed technical data

### Features

| | |
|---|---|
| **Housing** | Metric |
| **Housing** | Short-body |
| **Thread size** | M8 x 1 |
| **Diameter** | Ø 8 mm |
| **Sensing range $S_n$** | 2.5 mm |
| **Safe sensing range $S_a$** | 2.025 mm |
| **Installation type** | Non-flush |
| **Switching frequency** | 4,000 Hz |
| **Connection type** | Connector M8, 3-pin |
| **Switching output** | NPN |
| **Switching output detail** | NPN |
| **Output function** | NO |
| **Electrical wiring** | DC 3-wire |
| **Enclosure rating** | IP67 [1] |
| **Items supplied** | Mounting nut, steel, nickel-plated (2 x) |

[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** | –25 °C ... +75 °C |
| **Housing material** | Brass, nickel-plated |
| **Sensing face material** | Plastic, PA 66 |
| **Housing length** | 41 mm |
| **Thread length** | 21 mm |
| **Tightening torque, max.** | ≤ 5 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" |
| **A** | 8 mm |
| **B** | 16 mm |
| **C** | 8 mm |
| **D** | 7.5 mm |
| **E** | 6 mm |
| **F** | 20 mm |

## Certificates

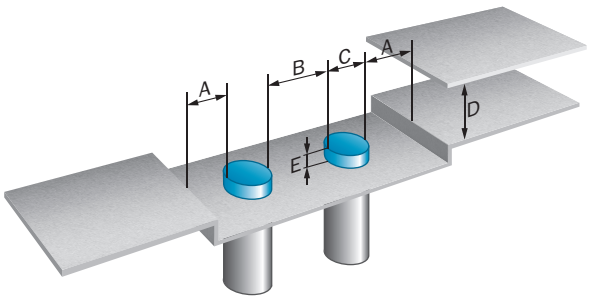
| | |
|---|---|
| **EU declaration of conformity** | ✓ |

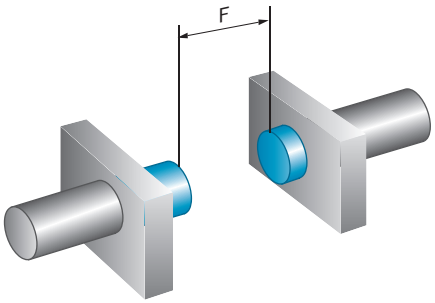
| | |
|---|---|
| **UK declaration of conformity** | ✓ |
| **ACMA declaration of conformity** | ✓ |
| **Moroccan declaration of conformity** | ✓ |
| **China RoHS** | ✓ |
| **cULus certificate** | ✓ |

## Classifications

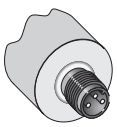
| | |
|---|---|
| **ECLASS 5.0** | 27270101 |
| **ECLASS 5.1.4** | 27270101 |
| **ECLASS 6.0** | 27270101 |
| **ECLASS 6.2** | 27270101 |
| **ECLASS 7.0** | 27270101 |
| **ECLASS 8.0** | 27270101 |
| **ECLASS 8.1** | 27270101 |
| **ECLASS 9.0** | 27270101 |
| **ECLASS 10.0** | 27270101 |
| **ECLASS 11.0** | 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

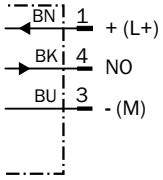


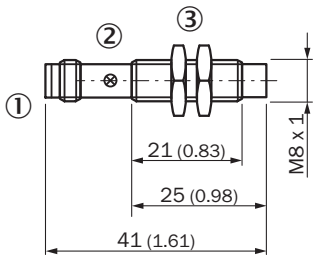

## Connection type



## Connection diagram Cd-002




## Dimensional drawing IME08 Short-body housing, connector, non-flush




Dimensions in mm (inch)
① Connection
② Display LED
③ Fastening nuts (2x); width across 13, metal

## Recommended accessories

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

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

| | Brief description | Type | part no. |
|---|---|---|---|
| connectors and cables | | | |
| | • **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded<br>• **Description:** Unshielded<br>• **Connection systems:** Screw-type terminals<br>• **Permitted cross-section:** 0.14 mm² ... 0.5 mm² | DOS-0803-G | 7902077 |
| | • **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded<br>• **Description:** Unshielded<br>• **Connection systems:** Solder connection<br>• **Permitted cross-section:** ≤ 0.25 mm² | DOS-0803-W | 7902078 |
| | • **Connection type head A:** Male connector, M8, 3-pin, straight, A-coded<br>• **Description:** Unshielded<br>• **Connection systems:** Screw-type terminals<br>• **Permitted cross-section:** 0.14 mm² ... 0.5 mm² | STE-0803-G | 6037322 |
| | • **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 2 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YF8U13-020VA1XLEAX | 2095860 |
| | • **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YF8U13-050VA1XLEAX | 2095884 |
| | • **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 10 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YF8U13-100VA1XLEAX | 2095885 |
| | • **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 2 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YG8U13-020VA1XLEAX | 2096165 |
| | • **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YG8U13-050VA1XLEAX | 2096166 |
| | • **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 10 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YG8U13-100VA1XLEAX | 2096209 |
| | • **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 3-wire, PUR, halogen-free<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation | YF8U13-050UA1XLEAX | 2094788 |
| | • **Connection type head A:** Female connector, M8, 3-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 0.6 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded | YF8U13-C60VA1XLEAX | 2146368 |

| | Brief description | Type | part no. |
|---|---|---|---|
| | • **Application:** Zones with chemicals, Uncontaminated zones | | |
| | • **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 1 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YG8U13-010VA1XLEAX | 2146371 |
| | • **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 3 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YG8U13-030VA1XLEAX | 2146372 |
| | • **Connection type head A:** Female connector, M8, 3-pin, angled, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 0.6 m, 3-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Zones with chemicals, Uncontaminated zones | YG8U13-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.

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.”**

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