Data sheet

# IMI30-10BNONC0S

IMI

**INDUCTIVE PROXIMITY SENSORS**

SICK
Sensor Intelligence.

Illustration may differ

## Ordering information

| Type | part no. |
|---|---|
| IMI30-10BNONC0S | 1093950 |

**Included in delivery:** BEF-MU-M30N1 (1)

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

## Detailed technical data

### Features

| | |
|---|---|
| **Housing** | Metric |
| **Thread size** | M30 x 1.5 |
| **Diameter** | Ø 30 mm |
| **Sensing range $S_n$** | 10 mm |
| **Safe sensing range $S_a$** | 8.1 mm |
| **Installation type** | Flush |
| **Switching frequency** | 50 Hz |
| **Connection type** | Male connector M12, 4-pin |
| **Switching output** | NPN |
| **Switching output detail** | NPN |
| **Output function** | NC |
| **Electrical wiring** | DC 3-wire |
| **Enclosure rating** | IP68 [1)]<br>IP69K |
| **Special features** | Sensing face made of stainless steel V4A, Resistant to cleaning agents |
| **Special applications** | Hygienic and washdown zones, Difficult application conditions |
| **Items supplied** | Mounting nut, V4A stainless steel (2x) |

[1)] According to EN 60529.

### Mechanics/electronics

| | |
|---|---|
| **Supply voltage** | 10 V DC ... 30 V DC |

[1)] Of $V_S$.
[2)] With I max.
[3)] Of Sr.

| | |
|---|---|
| **Ripple** | ≤ 10 % [1] |
| **Voltage drop** | ≤ 2 V [2] |
| **Time delay before availability** | ≤ 300 ms |
| **Hysteresis** | 1 % ... 20 % |
| **Reproducibility** | ≤ 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** | 100 g / 5 ms / 1000 cycles; 150 g / 1 Mio cycles; 10 Hz ... 55 Hz, 1 mm / 55 Hz ... 500 Hz / 60 g |
| **Ambient operating temperature** | –25 °C ... +75 °C |
| **Housing material** | Stainless steel V4A, DIN 1.4404 / AISI 316L |
| **Sensing face material** | Stainless steel V4A, DIN 1.4404 / AISI 316L |
| **Housing length** | 65.3 mm |
| **Thread length** | 46.3 mm |
| **Tightening torque, max.** | ≤ 100 Nm |
| **Protection class** | III |
| **UL File No.** | E181493 |

[1] Of $V_S$.
[2] With I max.
[3] Of Sr.

## Safety-related parameters

| | |
|---|---|
| **$MTTF_D$** | 1,892 years |
| **$DC_{avg}$** | 0 % |

## Reduction factors

| | |
|---|---|
| **Note** | The values are reference values which may vary |
| **St37 steel (Fe)** | Approx. 1 |
| **Stainless steel (V2A, 304)** | Approx. 0.52 |
| **Aluminum (Al)** | Approx. 0.16 |
| **Copper (Cu)** | Approx. 0 |
| **Brass (Br)** | Approx. 0.22 |

## Installation note

| | |
|---|---|
| **Remark** | Associated graphic see "Installation" |
| **B** | 25 mm |
| **C** | 24 mm |
| **D** | 20 mm |
| **F** | 80 mm |

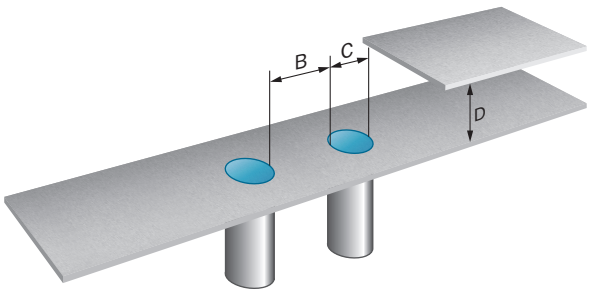
## Certificates

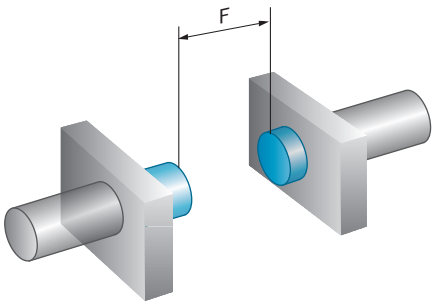
| | |
|---|---|
| **EU declaration of conformity** | ✓ |
| **UK declaration of conformity** | ✓ |
| **ACMA declaration of conformity** | ✓ |
| **Moroccan declaration of conformity** | ✓ |
| **China RoHS** | ✓ |
| **ECOLAB certificate** | ✓ |
| **FDA certificate** | ✓ |

## Classifications

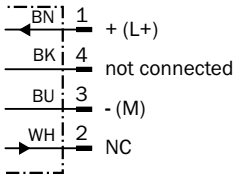
| | |
|---|---|
| **ECLASS 5.0** | 27270101 |
| **ECLASS 5.1.4** | 27270101 |
| **ECLASS 6.0** | 27270101 |
| **ECLASS 6.2** | 27270101 |
| **ECLASS 7.0** | 27270101 |
| **ECLASS 8.0** | 27270101 |
| **ECLASS 8.1** | 27270101 |
| **ECLASS 9.0** | 27270101 |
| **ECLASS 10.0** | 27270101 |
| **ECLASS 11.0**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

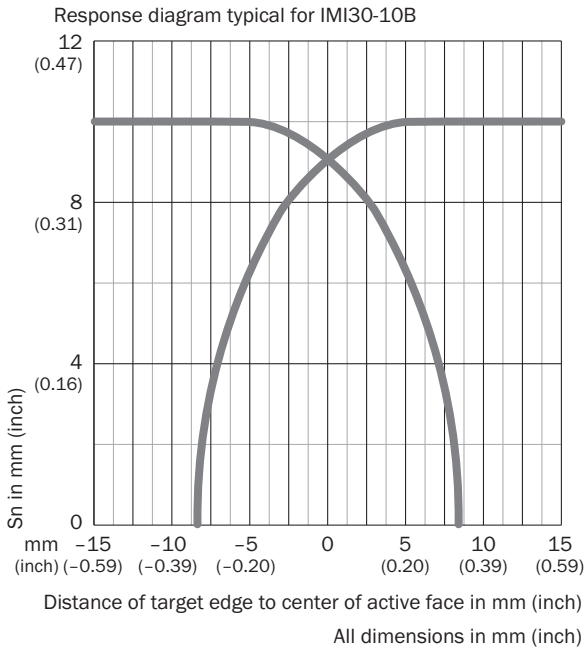


## Connection diagram Cd-008

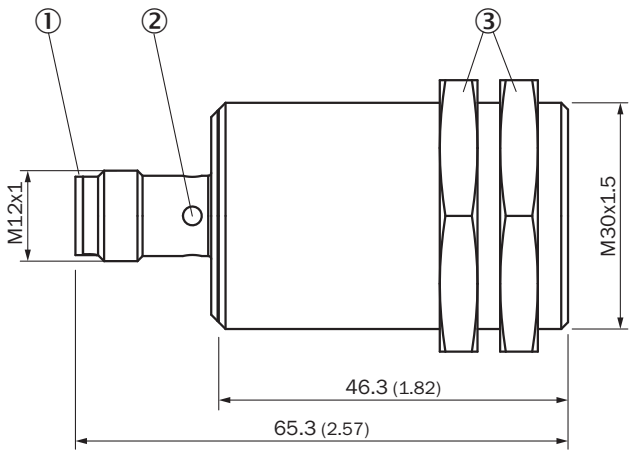



## Response diagram




All dimensions in mm (inch)

## Dimensional drawing IM30 Inox, flush




Dimensions in mm (inch)
① Connection
② Display LED

③ Fastening nuts (2 x); width across 36, stainless steel V4A

## Recommended accessories

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

| | Brief description | Type | part no. |
|---|---|---|---|
| connectors and cables | | | |
| | • **Connection type head A:** Female connector, M12, 4-pin, straight<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 4-wire, PP<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Connection systems:** Flying leads<br>• **Note:** This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H2O2)<br>• **Application:** Hygienic and washdown zones, Drag chain operation, Robot, cold bending resistant, seawater resistant | DOL-1204-G05MRN | 6058476 |
| | • **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 4-wire, PUR, halogen-free<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation | YF2A14-050UB3XLEAX | 2095608 |
| | • **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded<br>• **Connection type head B:** Flying leads<br>• **Signal type:** Sensor/actuator cable<br>• **Cable:** 5 m, 4-wire, PVC<br>• **Description:** Sensor/actuator cable, unshielded<br>• **Application:** Uncontaminated zones, Zones with chemicals | YF2A14-050VB3XLEAX | 2096235 |

# 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.”**

# WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com



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