Data sheet

# IM18-08NPS-ZW1

## IM Standard

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

Illustration may differ

## Ordering information

| Type | part no. |
|---|---|
| IM18-08NPS-ZW1 | 6011995 |

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

## Detailed technical data

### Features

| | |
|---|---|
| **Housing** | Metric |
| **Housing** | Standard design |
| **Thread size** | M18 x 1 |
| **Diameter** | Ø 18 mm |
| **Sensing range $S_n$** | 8 mm |
| **Installation type** | Non-flush |
| **Switching frequency** | 600 Hz |
| **Connection type** | Cable, 3-wire, 2 m |
| **Switching output** | PNP |
| **Switching output detail** | PNP |
| **Output function** | NO |
| **Electrical wiring** | DC 3-wire |
| **Enclosure rating** | IP67 [1] |

[1] According to EN 60529.

### Mechanics/electronics

| | |
|---|---|
| **Supply voltage** | 10 V DC ... 30 V DC |
| **Ripple** | ≤ 10 % |
| **Voltage drop** | ≤ 1 V [1] |
| **Time delay before availability** | ≤ 100 ms |
| **Hysteresis** | 2 % ... 10 % |
| **Reproducibility** | ≤ 2 % [2] [3] |
| **Temperature drift (of $S_r$)** | ± 10 % |

[1] At $I_a$ max.
[2] Supply voltage $U_B$ and constant ambient temperature Ta.
[3] Of Sr.

| | |
|---|---|
| **EMC** | According to EN 60947-5-2 |
| **Continuous current $I_a$** | ≤ 400 mA |
| **Cable material** | PVC |
| **Conductor size** | 0.34 mm² |
| **Short-circuit protection** | ✓ |
| **Power-up pulse protection** | ✓ |
| **Shock and vibration resistance** | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |
| **Ambient operating temperature** | –25 °C ... +70 °C |
| **Housing material** | Brass, Nickel-plated brass |
| **Sensing face material** | Plastic |
| **Housing length** | 50 mm |
| **Thread length** | 32 mm |
| **Tightening torque, max.** | 30 Nm |

[1] At $I_a$ max.

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

[3] Of Sr.

## Safety-related parameters

| | |
|---|---|
| **$MTTF_D$** | 93 years |
| **$DC_{avg}$** | 0 % |

## Installation note

| | |
|---|---|
| **Remark** | Associated graphic see "Installation" |
| **A** | 18 mm |
| **B** | 36 mm |
| **C** | 18 mm |
| **D** | 24 mm |
| **E** | 16 mm |
| **F** | 64 mm |

## Certificates

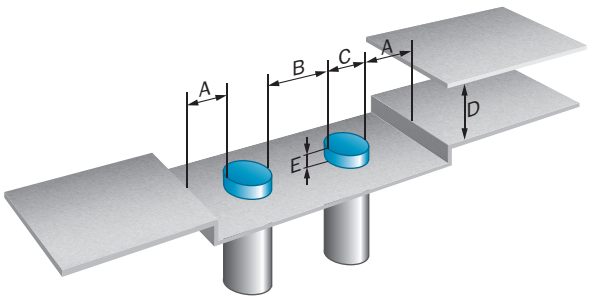
| | |
|---|---|
| **EU declaration of conformity** | ✓ |
| **UK declaration of conformity** | ✓ |
| **Moroccan declaration of conformity** | ✓ |
| **China RoHS** | ✓ |

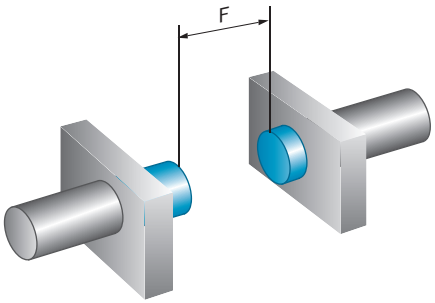
## Classifications

| | |
|---|---|
| **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 |

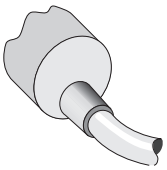
| | |
|---|---|
| **ECLASS 9.0** | 27270101 |
| **ECLASS 10.0** | 27270101 |
| **ECLASS 11.0** | 27270101 |
| **ECLASS 12.0** | 27274001 |
| **ETIM 5.0** | EC002714 |
| **ETIM 6.0** | EC002714 |
| **ETIM 7.0** | EC002714 |
| **ETIM 8.0** | EC002714 |
| **UNSPSC 16.0901** | 39122230 |

## Installation note Non-flush installation

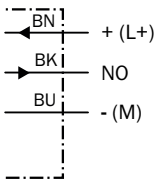


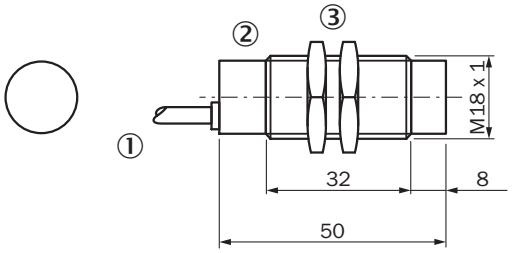

## Connection type



## Connection diagram Cd-001



## Dimensional drawing




Dimensions in mm (inch)
① Connection
② Display LED
③ Fastening nuts (2x); width across 24, metal

## Recommended accessories

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

| | Brief description | Type | part no. |
|---|---|---|---|
| Mounting systems | | | |
| | • **Description:** Clamping block for round sensors M18, without fixed stop<br>• **Material:** Plastic<br>• **Details:** Plastic (PA12), glass-fiber reinforced<br>• **Items supplied:** Mounting hardware included<br>• **Suitable for:** GR18, MH15V, V180-2, V18 | BEF-KH-M18 | 2051481 |
| | • **Description:** Mounting plate for M18 sensors<br>• **Material:** Steel<br>• **Details:** Steel, zinc coated<br>• **Items supplied:** Without mounting hardware<br>• **Suitable for:** GR18, V180-2, V18, W15, Z1, Z2 | BEF-WG-M18 | 5321870 |
| | • **Description:** Mounting bracket for M18 sensors<br>• **Material:** Steel<br>• **Details:** Steel, zinc coated<br>• **Items supplied:** Without mounting hardware<br>• **Suitable for:** GR18, V180-2, V18, W15, Z1, Z2 | BEF-WN-M18 | 5308446 |
| | • **Description:** Mounting bracket for M18 sensors<br>• **Material:** Stainless steel<br>• **Details:** Stainless steel<br>• **Items supplied:** Without mounting hardware | BEF-WN-M18N | 5320947 |

# 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:

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