Data sheet

# IQ12-04BPSKW2S

IQB

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

Illustration may differ

## Ordering information

| Type | part no. |
|---|---|
| IQ12-04BPSKW2S | 1055428 |

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

## Detailed technical data

### Features

| | |
|---|---|
| **Housing** | Rectangular |
| **Dimensions (W x H x D)** | 12 mm x 40 mm x 26 mm |
| **Sensing range $S_n$** | 4 mm |
| **Safe sensing range $S_a$** | 3.24 mm |
| **Installation type** | Flush |
| **Switching frequency** | 2,000 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** | IP68 [1] |

[1] According to EN 60529.

### Mechanics/electronics

| | |
|---|---|
| **Supply voltage** | 10 V DC ... 30 V DC |
| **Ripple** | ≤ 10 % [1] |
| **Voltage drop** | ≤ 2 V [2] |
| **Time delay before availability** | ≤ 100 ms |
| **Hysteresis** | 5 % ... 15 % |

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

| | |
|---|---|
| **Reproducibility** | ≤ 2 % [3] [4] |
| **Temperature drift (of $S_r$)** | ± 10 % |
| **EMC** | According to EN 60947-5-2 |
| **Continuous current $I_a$** | ≤ 200 mA |
| **No load current** | 10 mA |
| **Cable material** | PVC |
| **Conductor size** | 0.25 mm² |
| **Cable diameter** | Ø 3.7 mm |
| **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 ... +75 °C |
| **Housing material** | Plastic, VISTAL® |
| **Sensing face material** | Plastic, VISTAL® |
| **Tightening torque, max.** | ≤ 1 Nm |

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

## Safety-related parameters

| | |
|---|---|
| **$MTTF_D$** | 1,730 years |
| **$DC_{avg}$** | 0 % |
| **$T_M$ (mission time)** | 20 years |

## Reduction factors

| | |
|---|---|
| **Note** | The values are reference values which may vary |
| **Stainless steel (V2A, 304)** | 0.7 |
| **Aluminum (Al)** | 0.4 |
| **Copper (Cu)** | 0.3 |
| **Brass (Br)** | 0.4 |

## Installation note

| | |
|---|---|
| **Remark** | Associated graphic see "Installation" |
| **A** | 0 mm |
| **B** | 12 mm |
| **C** | 12 mm |
| **D** | 12 mm |
| **E** | 0 mm |
| **F** | 32 mm |
| **G** | 0 mm |

## Certificates

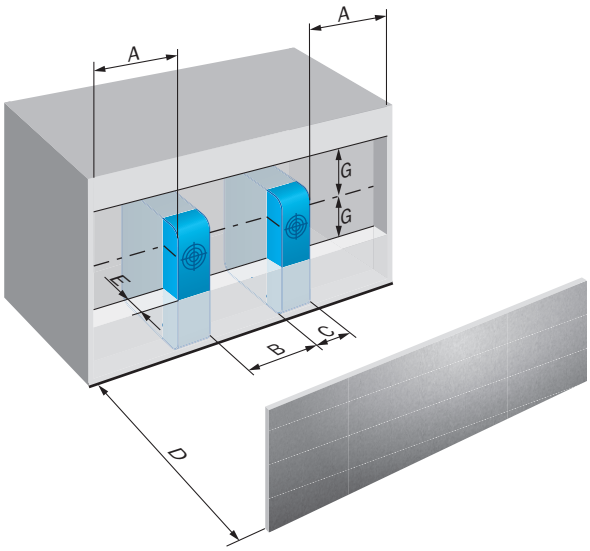
| | |
|---|---|
| **EU declaration of conformity** | ✓ |

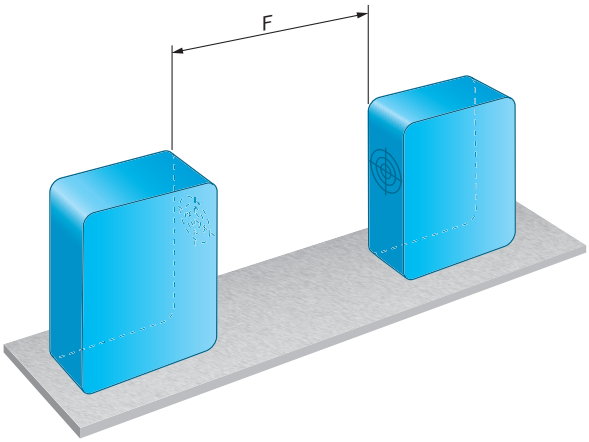
| | |
|---|---|
| **UK declaration of conformity** | ✓ |
| **ACMA declaration of conformity** | ✓ |
| **Moroccan declaration of conformity** | ✓ |
| **China RoHS** | ✓ |
| **cULus certificate** | ✓ |

## Classifications

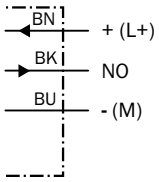
| | |
|---|---|
| **ECLASS 5.0** | 27270101 |
| **ECLASS 5.1.4** | 27270101 |
| **ECLASS 6.0** | 27270101 |
| **ECLASS 6.2** | 27270101 |
| **ECLASS 7.0** | 27270101 |
| **ECLASS 8.0** | 27270101 |
| **ECLASS 8.1** | 27270101 |
| **ECLASS 9.0** | 27270101 |
| **ECLASS 10.0** | 27270101 |
| **ECLASS 11.0**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

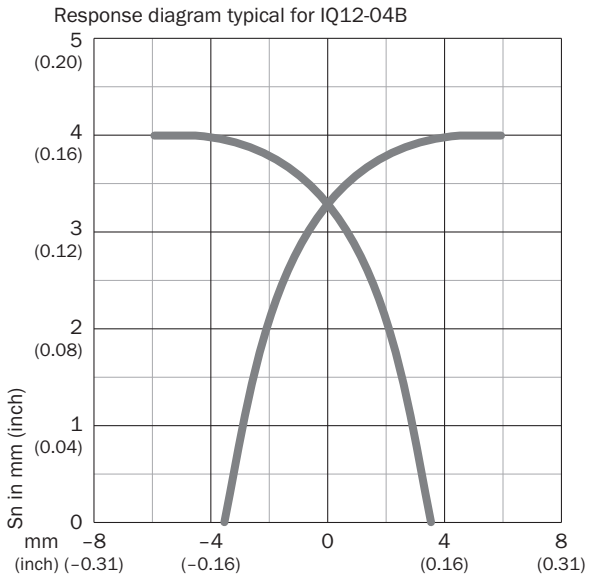


## Connection diagram Cd-001

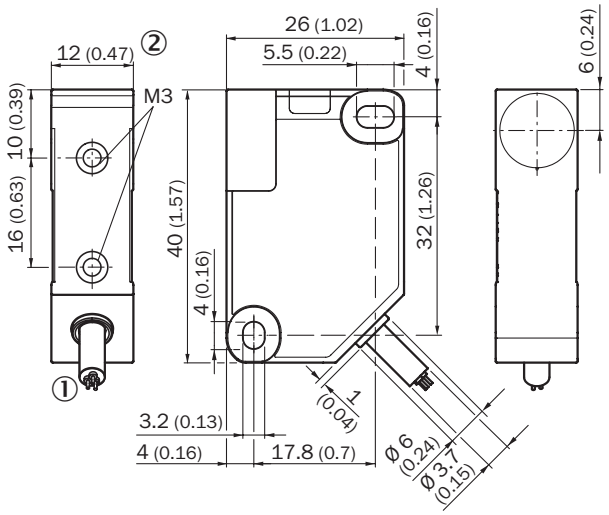



## Response diagram




All dimensions in mm (inch)

## Dimensional drawing IQ12, cable




Dimensions in mm (inch)

① Connection
② LED indicator 270°

# 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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