# IQ80-50BPP-KC0

IQL

**INDUCTIVE PROXIMITY SENSORS**

## Ordering information

| Type | Part no. |
|---|---|
| IQ80-50BPP-KC0 | 6026473 |

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

## Detailed technical data

### Features

| | |
|---|---|
| Housing | Rectangular |
| Housing | Standard design |
| Dimensions (W x H x D) | 80 mm x 92 mm x 40 mm |
| Sensing range $S_n$ | 50 mm |
| Safe sensing range $S_a$ | 40.5 mm |
| Installation type | Flush<br>Non-flush<br>Overflush |
| Switching frequency | 70 Hz |
| Connection type | Male connector M12, 4-pin |
| Switching output | PNP |
| Output function | Complementary |
| Electrical wiring | DC 4-wire |
| Enclosure rating | IP67 [1] |

[1] According to EN 60529.

### Mechanics/electronics

| | |
|---|---|
| Supply voltage | 10 V DC ... 36 V DC |
| Voltage drop | ≤ 2.5 V [1] |
| Hysteresis | 3 % ... 20 % |
| Temperature drift (of $S_r$) | ± 15 % |
| EMC | According to EN 60947-5-2 |
| Continuous current $I_a$ | ≤ 250 mA |
| Short-circuit protection | ✓ |
| Reverse polarity protection | ✓ |
| Shock and vibration resistance | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |

[1] With Ia max and Ub 24 V.

| | |
|---|---|
| **Ambient operating temperature** | –25 °C … +70 °C |
| **Housing material** | Zinc diecast, GD Zn |
| **Sensing face material** | Plastic, PPE |

[1] With Ia max and Ub 24 V.

## Safety-related parameters

| | |
|---|---|
| **MTTF$_D$** | 1,859 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)** | Approx. 0.85 |
| **Aluminum (Al)** | Approx. 0.46 |
| **Copper (Cu)** | Approx. 0.38 |
| **Brass (Br)** | Approx. 0.48 |

## Installation note

| | |
|---|---|
| **Remark** | Associated graphic see "Installation" |
| **A** | 0 mm |
| **B** | 80 mm |
| **C** | 80 mm |
| **D** | 150 mm |
| **E** | 0 mm |
| **F** | 400 mm |

## Classifications

| | |
|---|---|
| **eCl@ss 5.0** | 27270101 |
| **eCl@ss 5.1.4** | 27270101 |
| **eCl@ss 6.0** | 27270101 |
| **eCl@ss 6.2** | 27270101 |
| **eCl@ss 7.0** | 27270101 |
| **eCl@ss 8.0** | 27270101 |
| **eCl@ss 8.1** | 27270101 |
| **eCl@ss 9.0** | 27270101 |
| **eCl@ss 10.0** | 27270101 |
| **eCl@ss 11.0** | 27270101 |
| **eCl@ss 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
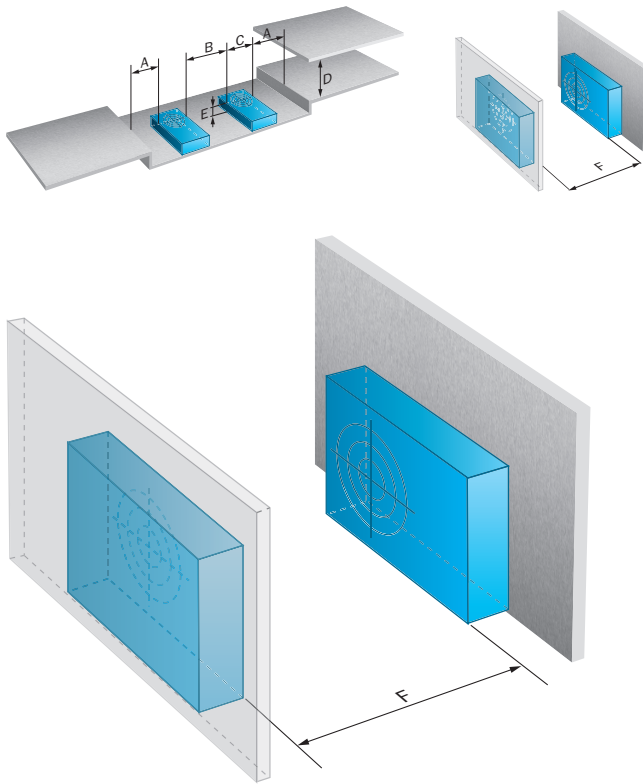
## Connection type
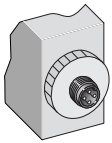
## Connection diagram

Cd-009

| | | |
|---|---|---|
| BN | 1 | + (L+) |
| BK | 4 | NO |
| BU | 3 | - (M) |
| WH | 2 | NC |
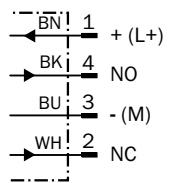
## Dimensional drawing (Dimensions in mm (inch))

IQ80, DC 4-wire
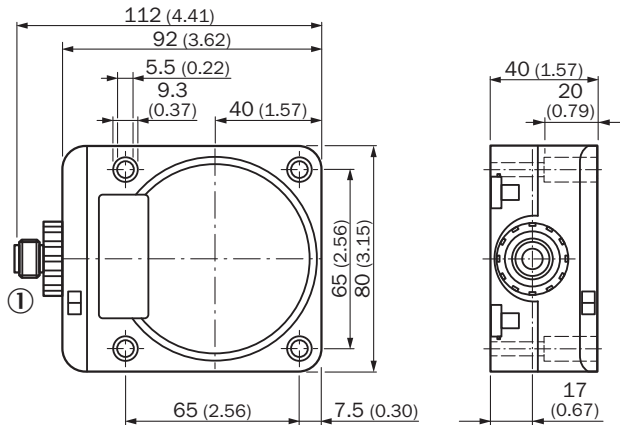
① Connection

## Recommended accessories

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

| | Brief description | Type | Part no. |
|---|---|---|---|
| **Plug connectors and cables** | | | |
| | Head A: female connector, M12, 4-pin, straight, A-coded<br>Head B: Flying leads<br>Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YF2A14-020VB3XLEAX | 2096234 |
| | Head A: female connector, M12, 4-pin, straight, A-coded<br>Head B: Flying leads<br>Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YF2A14-050VB3XLEAX | 2096235 |
| | Head A: female connector, M12, 4-pin, straight, A-coded<br>Head B: Flying leads<br>Cable: Sensor/actuator cable, PVC, unshielded, 10 m | YF2A14-100VB3XLEAX | 2096236 |
| | Head A: female connector, M12, 4-pin, angled, A-coded<br>Head B: Flying leads<br>Cable: Sensor/actuator cable, PVC, unshielded, 2 m | YG2A14-020VB3XLEAX | 2095895 |
| | Head A: female connector, M12, 4-pin, angled, A-coded<br>Head B: Flying leads<br>Cable: Sensor/actuator cable, PVC, unshielded, 5 m | YG2A14-050VB3XLEAX | 2095897 |
| | Head A: female connector, M12, 4-pin, angled, A-coded<br>Head B: Flying leads<br>Cable: Sensor/actuator cable, PVC, unshielded, 2 m<br>Only suitable for PNP sensors | YI2A14-020VB3XLEAX | 2096222 |
| | Head A: female connector, M12, 4-pin, angled, A-coded<br>Head B: Flying leads<br>Cable: Sensor/actuator cable, PVC, unshielded, 5 m<br>Only suitable for PNP sensors | YI2A14-050VB3XLEAX | 2096223 |

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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.

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**For us, that is "Sensor Intelligence."**

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