



IQ20-07BPSDPOS

IQV

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|----------------|----------|
| IQ20-07BPSDPO5 | 6042043 |

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



Detailed technical data

Features

| | |
|--|---------------------------------------|
| Housing | Rectangular |
| Dimensions (W x H x D) | 20 mm x 32 mm x 8 mm |
| Sensing range S_n | 7 mm |
| Safe sensing range S_a | 5.67 mm |
| Installation type | Flush |
| Switching frequency | 150 Hz |
| Connection type | Cable with connector M8, 3-pin, 0.3 m |
| Switching output | 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 % ¹⁾ |
| Voltage drop | < 2.5 V ²⁾ |
| Current consumption | 15 mA ³⁾ |
| Time delay before availability | ≤ 20 ms |
| Hysteresis | 1 % ... 15 % |
| Reproducibility | ± 5 % ⁴⁾ ⁵⁾ |
| Temperature drift (of S_n) | ± 10 % |
| EMC | According to EN 60947-5-2 |

¹⁾ Of V_S .

²⁾ At I_a max.

³⁾ Without load.

⁴⁾ U_b and T_a constant.

⁵⁾ Of S_r .

| | |
|---|----------------------------------|
| Continuous current I_a | ≤ 200 mA |
| Cable material | PUR |
| Short-circuit protection | ✓ |
| Reverse polarity protection | ✓ |
| Shock and vibration resistance | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |
| Ambient operating temperature | -25 °C ... +70 °C |
| Housing material | Metal, GD Zn |
| Sensing face material | Plastic, PA12 |
| MTTF_d: mean time to dangerous failure | 755 years |

1) Of V_S .

2) At I_a max.

3) Without load.

4) U_b and T_a constant.

5) Of S_r .

Safety-related parameters

| | |
|-------------------------|-----------|
| MTTF_D | 755 years |
| DC_{avg} | 0% |

Reduction factors

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

Installation note

| | |
|---------------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A | 0 mm |
| B | 20 mm |
| C | 20 mm |
| D | 21 mm |
| E | 0 mm |
| F | 60 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 |
| ETIM 5.0 | EC002714 |

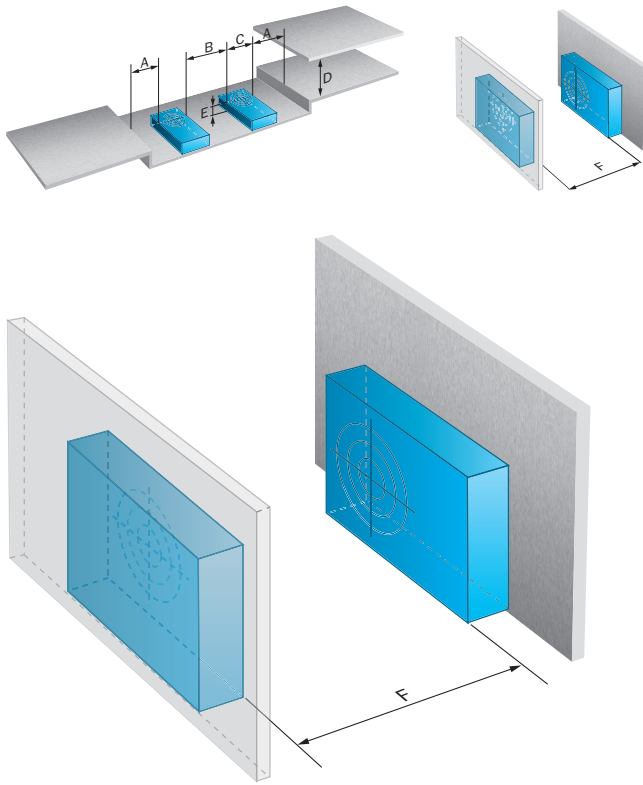
ETIM 6.0

EC002714

UNSPSC 16.0901

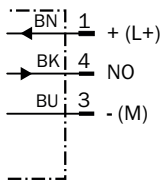
39122230

Installation note



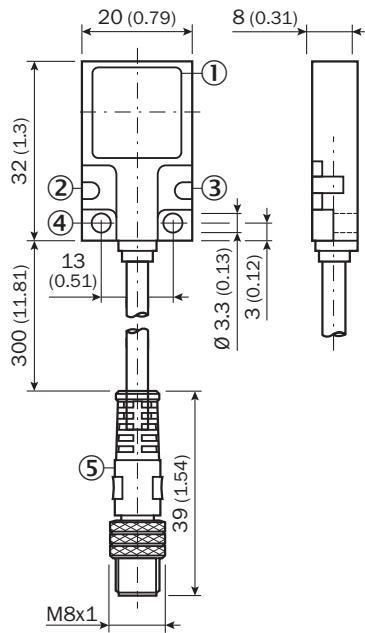
Connection diagram

Cd-002



Dimensional drawing (Dimensions in mm (inch))

IQ20, cable with M8 male connector, 3-pin



- ① Sensing face
- ② Operational status LED, green
- ③ LED output state, yellow
- ④ Fixing hole
- ⑤ Connection

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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