# IQ05-0B8PO-ZU1

IQY

**INDUCTIVE PROXIMITY SENSORS**

**SICK**
Sensor Intelligence.

# IQ05-0B8PO-ZU1 | IQY
## INDUCTIVE PROXIMITY SENSORS

## Ordering information

| Type | part no. |
|---|---|
| IQ05-0B8PO-ZU1 | 6020163 |

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

## Detailed technical data

### Features

| | |
|---|---|
| Housing | Rectangular |
| Dimensions (W x H x D) | 5 mm x 25 mm x 5 mm |
| Sensing range $S_n$ | 0.8 mm |
| Safe sensing range $S_a$ | 0.648 mm |
| Installation type | Flush |
| Switching frequency | 5,000 Hz |
| Connection type | Cable, 3-wire, 2 m |
| Switching output | PNP |
| Switching output detail | PNP |
| Output function | NC |
| 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 | ≤ 20 % [1] |
| Voltage drop | ≤ 2 V [2] |
| Time delay before availability | ≤ 10 ms |
| Hysteresis | 1 % … 10 % |
| Reproducibility | ≤ 1.5 % [3] |

[1] Of $V_S$.

[2] At $I_a$ max.

[3] Ub = 20 V DC … 30 V DC, Ta = 23 °C ± 5 °C.

| Temperature drift (of $S_r$) | ± 10 % |
|---|---|
| EMC | According to EN 60947-5-2 |
| Continuous current $I_a$ | ≤ 200 mA |
| Cable material | PUR |
| Conductor size | 0.06 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, chromium-plated |
| Sensing face material | Plastic, POM |
| UL File No. | E191603 |

[1] Of $V_S$.

[2] At $I_a$ max.

[3] Ub = 20 V DC ... 30 V DC, Ta = 23 °C ± 5 °C.

## Safety-related parameters

| $MTTF_D$ | 186 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. 0.6 |
| Copper (Cu) | Approx. 0.6 |
| Brass (Br) | Approx. 0.7 |

## Installation note

| Remark | Associated graphic see "Installation" |
|---|---|
| A | 0.8 mm |
| B | 0 mm |
| C | 5 mm |
| D | 2.4 mm |
| E | 0 mm |
| F | 7 mm |
| G | 3.3 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
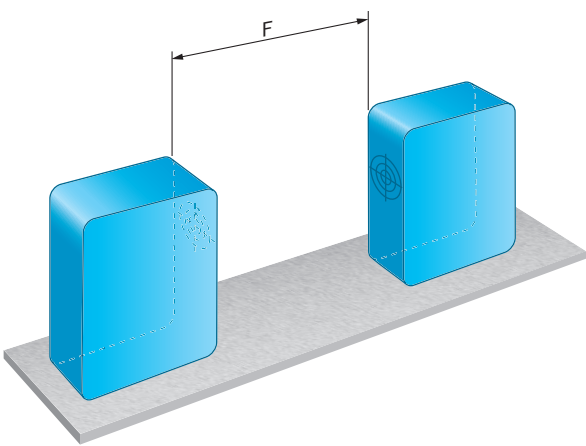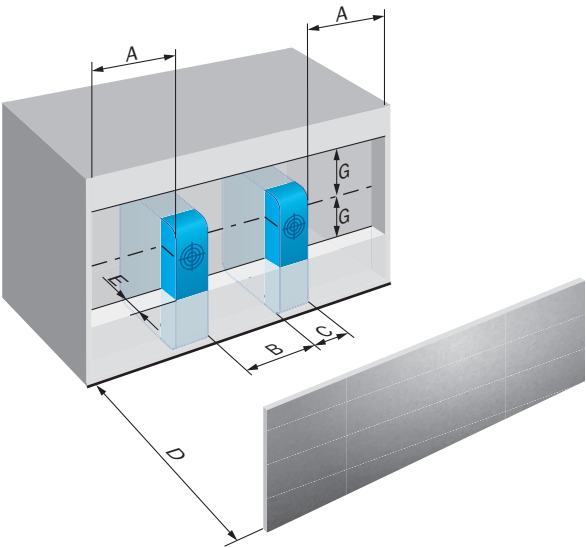
## Connection diagram Cd-003

```
BN ──◄── + (L+)
BK ──►── NC
BU ─────  - (M)
```
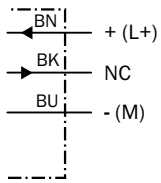
## Dimensional drawing IQ05

2.6 (0.10)

2,7 (0.11)

25 (0.98)

5 (0.20)

2.5 (0.10)

M1.6    M1.6

1.5 (0.06)

5 (0.20)

14 (0.55)

5.5 (0.22)
active area
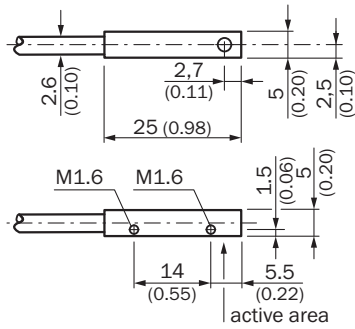
Dimensions in mm (inch)

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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.

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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