



CQ4-08EPSKT1

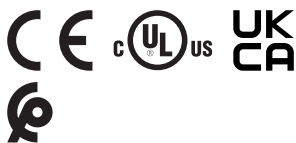
CQ

CAPACITIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|--------------|----------|
| CQ4-08EPSKT1 | 6051004 |

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

Detailed technical data

Features

| | |
|--|--|
| Housing | Rectangular |
| Dimensions (W x H x D) | 16 mm x 39.5 mm x 12 mm |
| Sensing range S_n | 1 mm ... 8 mm ¹⁾ 1 mm ... 6 mm ²⁾ |
| Safe sensing range S_a | 5.76 mm |
| Installation type | Non-flush Flush |
| Switching frequency | 100 Hz |
| Connection type | Connector M8, 3-pin |
| Switching output | PNP |
| Output function | NO |
| Electrical wiring | DC 3-wire |
| Adjustment | Potentiometer Sensitivity (5 turns) |
| Enclosure rating | IP67 ³⁾ |
| Items supplied | Screwdriver for potentiometer adjustment (1 x) |

¹⁾ For non-flush installation.

²⁾ For flush mounting.

³⁾ According to EN 60529.

Mechanics/electronics

| | |
|---|----------------------------------|
| Supply voltage | 10 V DC ... 30 V DC |
| Ripple | ≤ 10 % |
| Voltage drop | ≤ 2.5 V DC ¹⁾ |
| Current consumption | 12 mA ²⁾ |
| Time delay before availability | ≤ 200 ms |
| Hysteresis | 4 % ... 20 % ³⁾ |
| Reproducibility | ≤ 5 % ^{4) 5)} |
| Temperature drift (of S_r) | ± 20 % |
| EMC | According to EN 60947-5-2 |
| Continuous current I_a | ≤ 150 mA |
| Short-circuit protection | ✓ |
| Power-up pulse protection | ✓ |
| Shock and vibration resistance | 30 g, 11 ms / 10 ... 55 Hz, 1 mm |
| Ambient operating temperature | -20 °C ... +75 °C |
| Ambient temperature, storage | -40 °C ... +85 °C |
| Housing material | Plastic, ABS |
| Sensing face material | Plastic |
| UL File No. | NRKH.E191603 |

¹⁾ At I_a max.

²⁾ Without load.

³⁾ Depending on installation and environmental conditions and sensitivity adjustment, hysteresis may vary.

⁴⁾ Of S_r.

⁵⁾ Supply voltage U_B and constant ambient temperature T_a.

Safety-related parameters

| | |
|-------------------------------------|-------------|
| MTTF_D | 1,344 years |
| DC_{avg} | 0 % |
| T_M (mission time) | 20 years |

Reduction factors

| | |
|-----------------|--|
| Note | The values are reference values which may vary |
| Metal | 1 |
| Water | 1 |
| PVC | Approx. 0.4 |
| Oil | Approx. 0.25 |
| Glass | 0.6 |
| Ceramics | 0.5 |
| Alcohol | 0.7 |
| Wood | 0.2 ... 0.7 |

Installation note

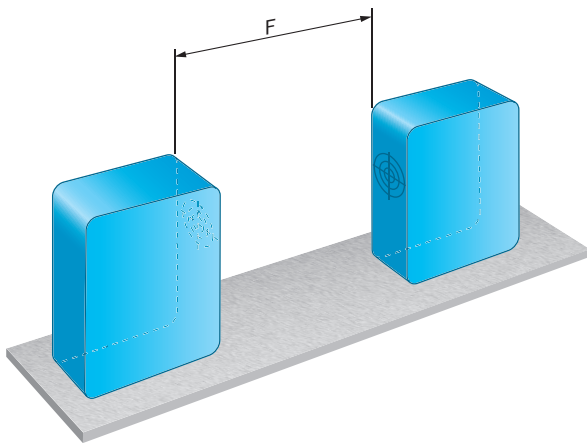
| | |
|---------------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A | 16 mm |

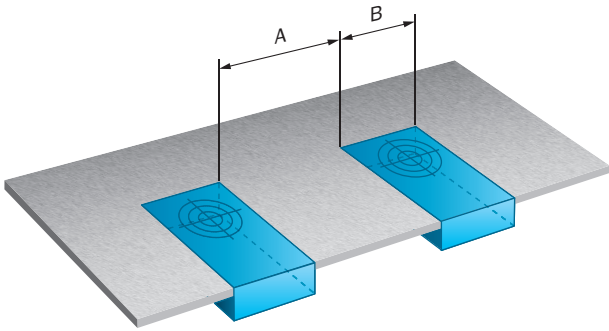
| | |
|----------|-------|
| B | 16 mm |
| F | 48 mm |

Classifications

| | |
|-----------------------|----------|
| ECLASS 5.0 | 27270102 |
| ECLASS 5.1.4 | 27270102 |
| ECLASS 6.0 | 27270102 |
| ECLASS 6.2 | 27270102 |
| ECLASS 7.0 | 27270102 |
| ECLASS 8.0 | 27270102 |
| ECLASS 8.1 | 27270102 |
| ECLASS 9.0 | 27270102 |
| ECLASS 10.0 | 27270102 |
| ECLASS 11.0 | 27270102 |
| ECLASS 12.0 | 27274201 |
| ETIM 5.0 | EC002715 |
| ETIM 6.0 | EC002715 |
| ETIM 7.0 | EC002715 |
| ETIM 8.0 | EC002715 |
| UNSPSC 16.0901 | 39122230 |

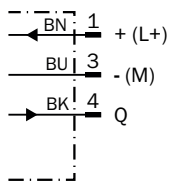
Installation note





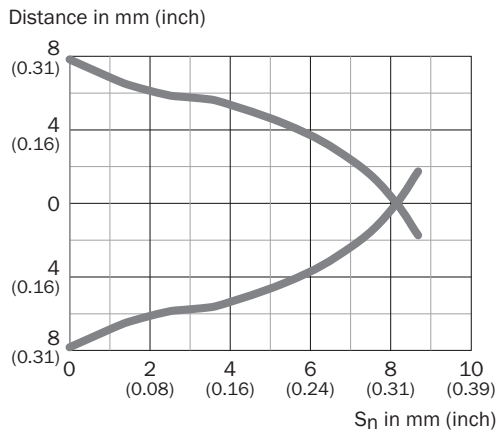
Connection diagram

Cd-045



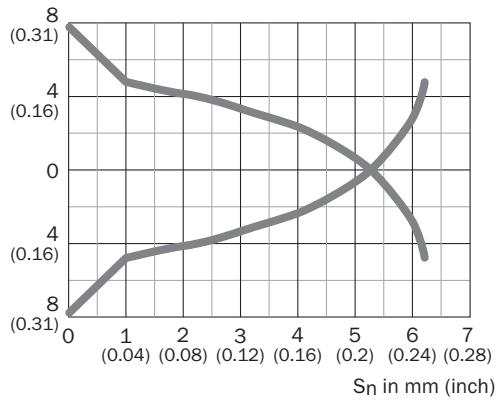
Response diagram

CQ4, Non-flush installation



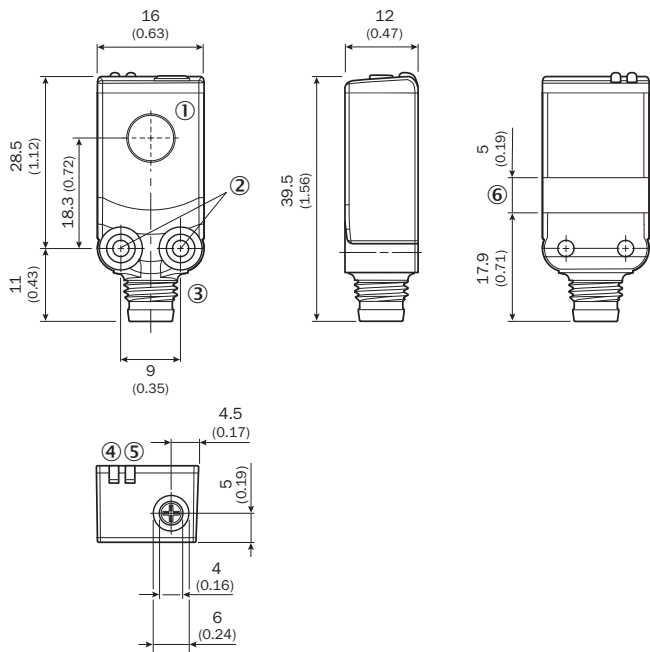
CQ4, Flush installation

Distance in mm (inch)



Dimensional drawing (Dimensions in mm (inch))

CQ4, connector



- ① Sensing face
- ② Threaded hole M3 (2 x)
- ③ Connector M8, 3-pin
- ④ Yellow LED: status detection of object/medium
- ⑤ LED green: operating indicator
- ⑥ Line for cable tie

Recommended accessories

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

| | Brief description | Type | Part no. |
|---|--|--------------------|----------|
| Mounting brackets and plates | | | |
|  | Mounting bracket for wall mounting, Stainless steel 1.4571, mounting hardware included | BEF-W4-A | 2051628 |
|  | Mounting bracket for floor mounting, Stainless steel 1.4571, mounting hardware included | BEF-W4-B | 2051630 |
| Terminal and alignment brackets | | | |
|  | Ball clamp bracket, plastic, mounting hardware included | BEF-GH-MINI01 | 2023160 |
| Others | | | |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M8, 3-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: 0.14 mm² ... 0.5 mm² | DOS-0803-G | 7902077 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M8, 3-pin, angled, A-coded Description: Unshielded Connection systems: Solder connection Permitted cross-section: ≤ 0.25 mm² | DOS-0803-W | 7902078 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M8, 3-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 3-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals | YF8U13-020VA1XLEAX | 2095860 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M8, 3-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 3-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals | YF8U13-050VA1XLEAX | 2095884 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M8, 3-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 3-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals | YG8U13-020VA1XLEAX | 2096165 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M8, 3-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 3-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals | YG8U13-050VA1XLEAX | 2096166 |

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.”

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