



CQ35-25NPP-KW1

CQ

CAPACITIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | Part no. |
|----------------|----------|
| CQ35-25NPP-KW1 | 6021463 |

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

Detailed technical data

Features

| | |
|--|-----------------------------------|
| Housing | Rectangular |
| Dimensions (W x H x D) | 35 mm x 69.5 mm x 15 mm |
| Sensing range S_n | 4 mm ... 25 mm |
| Safe sensing range S_a | 18 mm |
| Installation type | Non-flush |
| Switching frequency | 50 Hz |
| Connection type | Cable, 4-wire, 2 m ¹⁾ |
| Switching output | NPN |
| Output function | Complementary |
| Electrical wiring | DC 4-wire |
| Adjustment | Potentiometer, 270° (Sensitivity) |
| Enclosure rating | IP67 ²⁾ |

¹⁾ Do not bend below 0 °C.

²⁾ According to EN 60529.

Mechanics/electronics

| | |
|-----------------------|--------------------------|
| Supply voltage | 10 V DC ... 36 V DC |
| Ripple | ≤ 10 % ¹⁾ |
| Voltage drop | ≤ 2.5 V DC ²⁾ |

¹⁾ Of U_b .

²⁾ At I_a max.

³⁾ Without load.

⁴⁾ Of S_r .

⁵⁾ U_b and T_a constant.

⁶⁾ In EMC critical applications, conducted interference levels may lie within the frequency range of the oscillator. This can cause changes to the output signal. (See operating instructions.).

| | |
|---|--|
| Current consumption | 10 mA ³⁾ |
| Time delay before availability | ≤ 100 ms |
| Hysteresis | 4 % ... 20 % |
| Reproducibility | ≤ 5 % ^{4) 5)} |
| Temperature drift (of S_r) | ± 10 % |
| EMC | According to EN 60947-5-2 ⁶⁾ |
| Continuous current I_a | ≤ 200 mA |
| Cable material | PVC |
| Conductor size | 0.34 mm ² |
| Short-circuit protection | ✓ |
| Reverse polarity 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, PC |
| Sensing face material | Plastic |
| Items supplied | Screwdriver for potentiometer adjustment (1 x) |
| UL File No. | NRKH.E191603 |

1) Of U_b.

2) At I_a max.

3) Without load.

4) Of S_r.

5) U_b and T_a constant.

6) In EMC critical applications, conducted interference levels may lie within the frequency range of the oscillator. This can cause changes to the output signal. (See operating instructions.)

Safety-related parameters

| | |
|-------------------------------------|-----------|
| MTTF_D | 897 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

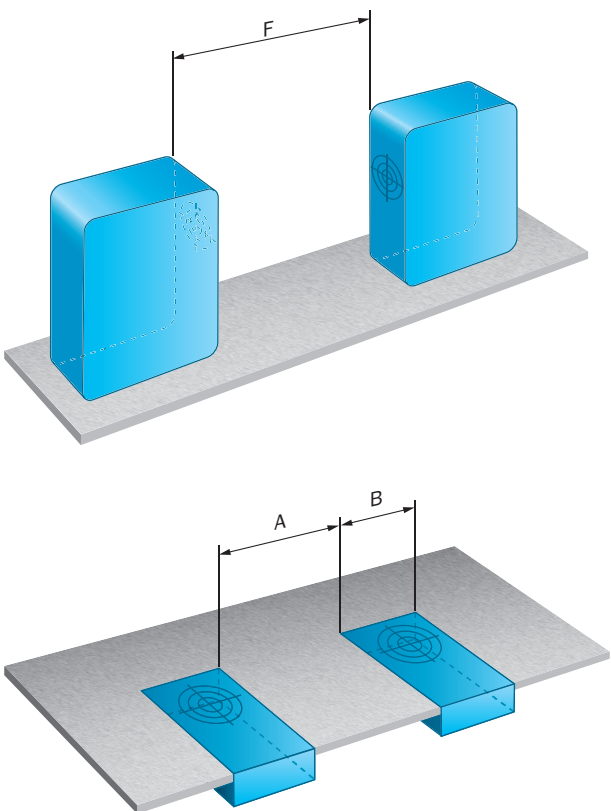
| | |
|---------------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A | 35 mm |

| | |
|----------|-------|
| B | 35 mm |
|----------|-------|

Classifications

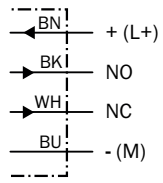
| | |
|-----------------------|----------|
| ECl@ss 5.0 | 27270102 |
| ECl@ss 5.1.4 | 27270102 |
| ECl@ss 6.0 | 27270102 |
| ECl@ss 6.2 | 27270102 |
| ECl@ss 7.0 | 27270102 |
| ECl@ss 8.0 | 27270102 |
| ECl@ss 8.1 | 27270102 |
| ECl@ss 9.0 | 27270102 |
| ECl@ss 10.0 | 27270102 |
| ECl@ss 11.0 | 27270102 |
| ETIM 5.0 | EC002715 |
| ETIM 6.0 | EC002715 |
| ETIM 7.0 | EC002715 |
| ETIM 8.0 | EC002715 |
| UNSPSC 16.0901 | 39122230 |

Installation note



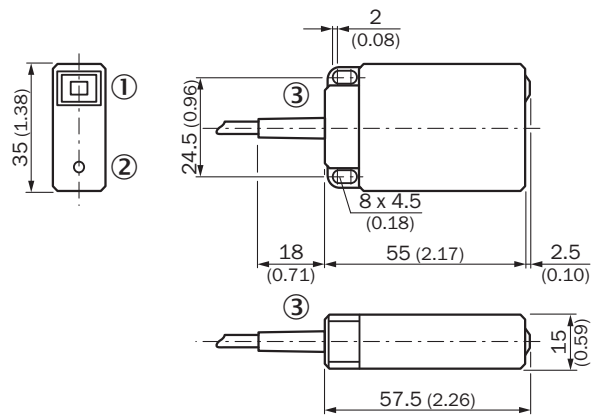
Connection diagram

Cd-005



Dimensional drawing (Dimensions in mm (inch))

CQ35, cable



- ① Display LED
- ② Potentiometer
- ③ Connection

SICK AT A GLANCE

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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.”

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