



CQ28-10NPP-KW1S02

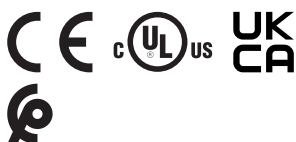
CQ

CAPACITIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
CQ28-10NPP-KW1S02	6037194

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

Detailed technical data

Features

Housing	Rectangular
Dimensions (W x H x D)	28 mm x 46 mm x 5.5 mm
Sensing range S_n	1 mm ... 10 mm
Safe sensing range S_a	7.2 mm
Installation type	Non-flush
Switching frequency	10 Hz
Connection type	Cable with M8 male connector, 4-pin, 230 mm ¹⁾
Switching output	PNP
Output function	NC or NO
Electrical wiring	DC 4-wire
Adjustment	
	Teach-in button
	Wire/pin
	Sensitivity
	Sensitivity
Enclosure rating	IP68 ²⁾

¹⁾ Do not bend below 0 °C.

²⁾ 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⁾

¹⁾ At I_a max.

²⁾ Without load.

³⁾ Of S_r .

⁴⁾ Supply voltage U_B and constant ambient temperature T_a .

⁵⁾ 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.).

Time delay before availability	≤ 300 ms
Reproducibility	≤ 5 % ^{3) 4)}
Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2 ⁵⁾
Continuous current I_a	≤ 200 mA
Cable material	PVC
Conductor size	0.14 mm ²
Short-circuit protection	✓
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	-20 °C ... +85 °C
Ambient temperature, storage	-40 °C ... +85 °C
Housing material	Plastic, PBT
Sensing face material	Plastic

1) At I_a max.

2) Without load.

3) Of S_r.

4) Supply voltage U_B and constant ambient temperature T_a.

5) 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	1,112 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

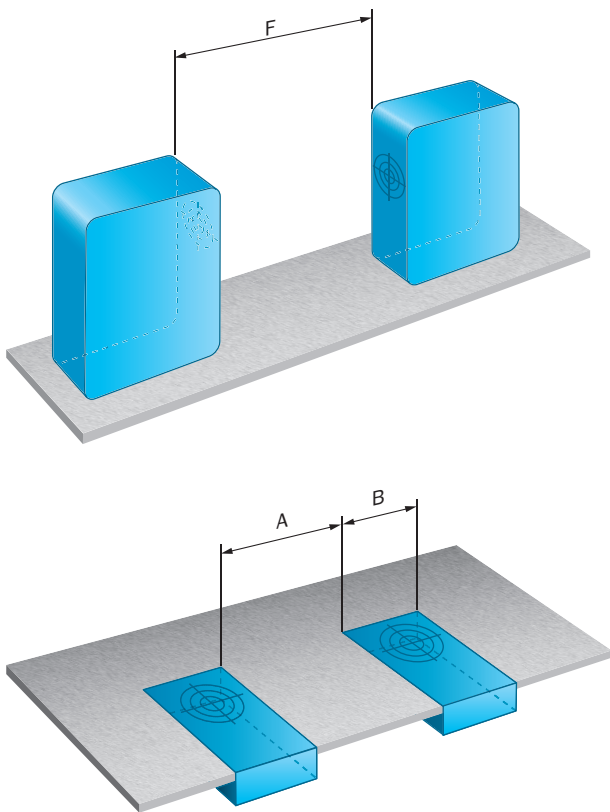
Remark	Associated graphic see "Installation"
A	27.6 mm
B	27.6 mm

Classifications

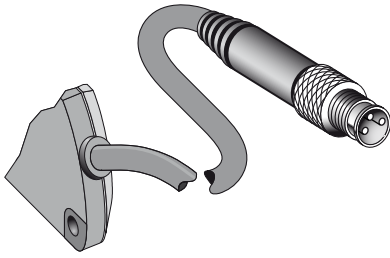
ECLASS 5.0	27270102
ECLASS 5.1.4	27270102
ECLASS 6.0	27270102

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

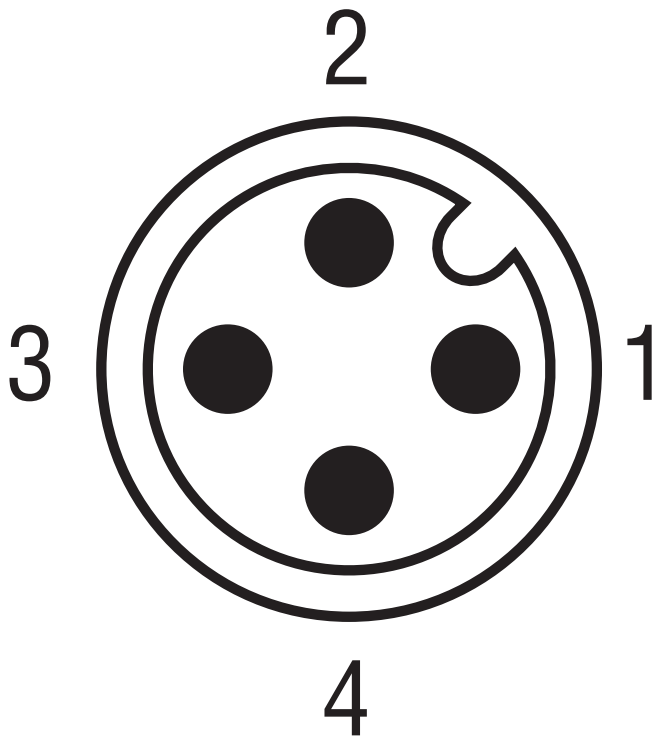
Installation note



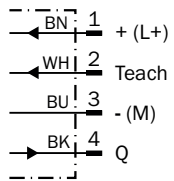
Connection type



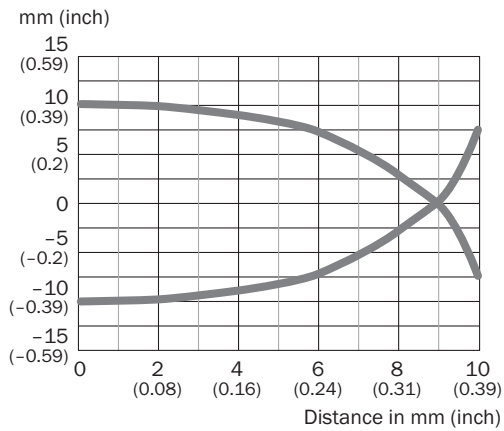
Connection diagram



Cd-092

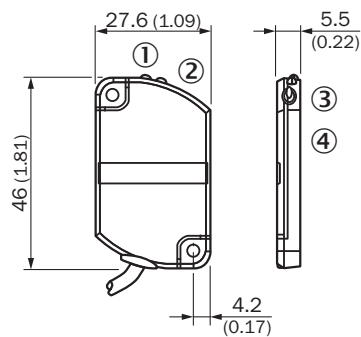


Response diagram



Dimensional drawing (Dimensions in mm (inch))

CQ28, cable with male connector



- ① LED indicator green
- ② LED indicator yellow
- ③ Teach-in button
- ④ Sensing face

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For us, that is “Sensor Intelligence.”

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