



DATA SHEET

CQ35-25NPP-KC1

CQ
Capacitive proximity sensors

SICK

Sensor Intelligence



Illustration may differ

CAPACITIVE PROXIMITY SENSORS

CQ35-25NNP-KC1

ORDERING INFORMATION

Type	part no.
CQ35-25NNP-KC1	6021464

Further device versions and accessories at 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	Male connector M12, 4-pin
Switching output	NPN
Switching output detail	NPN
Output function	Complementary
Electrical wiring	DC 4-wire
Adjustment	Potentiometer
	Sensitivity (270°)
Enclosure rating	IP67 ¹⁾
Items supplied	Screwdriver for potentiometer adjustment (1 x)

¹⁾ According to EN 60529.

MECHANICS/ELECTRONICS

Supply voltage	10 V DC ... 36 V DC
----------------	---------------------

¹⁾ Of U_b .

²⁾ At I_a max.

³⁾ Without load.

⁴⁾ Of S_r .

⁵⁾ Supply voltage U_s and constant ambient temperature T_a .

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.).

Ripple	$\leq 10\%$ ¹⁾
Voltage drop	$\leq 2.5\text{ V DC}$ ²⁾
Current consumption	10 mA ³⁾
Time delay before availability	$\leq 100\text{ ms}$
Hysteresis	$4\% \dots 20\%$
Reproducibility	$\leq 5\%$ ⁴⁾ ⁵⁾
Temperature drift (of S _r)	$\pm 10\%$
EMC	According to EN 60947-5-2 ⁶⁾
Continuous current I _s	$\leq 200\text{ mA}$
Short-circuit protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	$-25\text{ °C} \dots +75\text{ °C}$
Housing material	Plastic, PC
Sensing face material	Plastic
UL File No.	NRKH.E191603

¹⁾ Of U_b.²⁾ At I_s max.³⁾ Without load.⁴⁾ Of S_r.⁵⁾ Supply voltage U_s and constant ambient temperature T_a.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

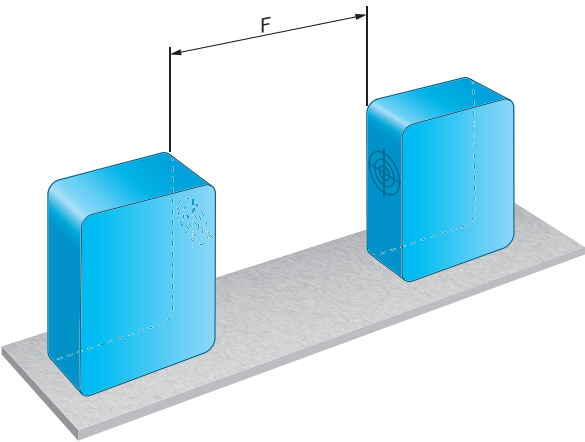
INSTALLATION NOTE

Remark	Associated graphic see "Installation"
A	35 mm
B	35 mm
F	6 x S _n (max. 150 mm)

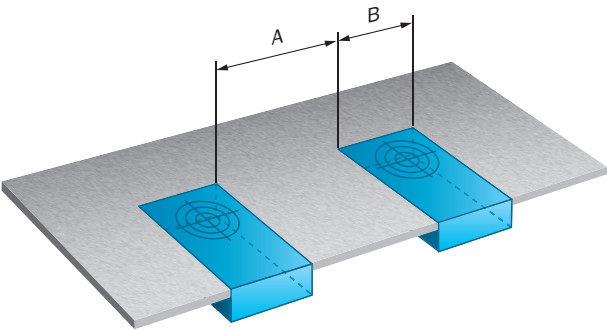
CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓

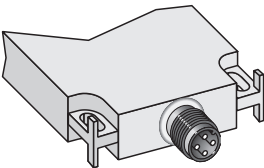
INSTALLATION NOTE



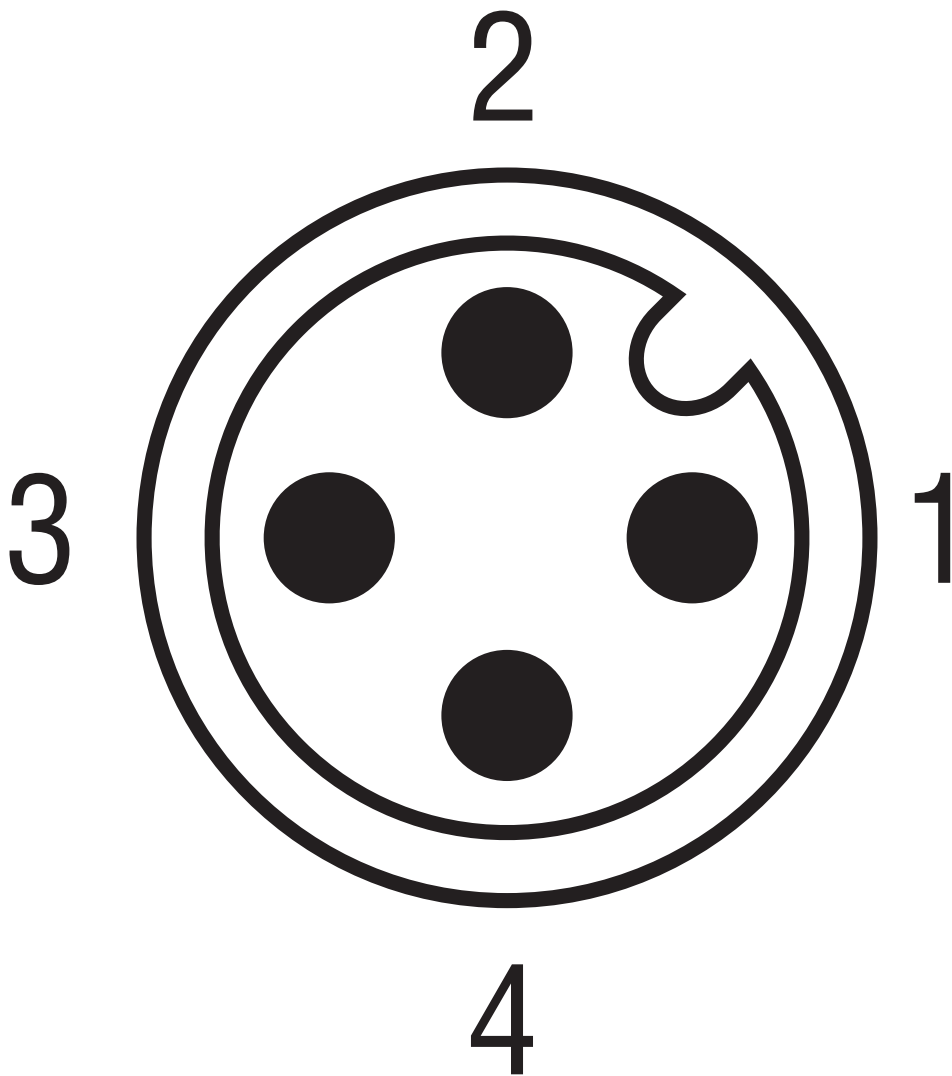
INSTALLATION NOTE



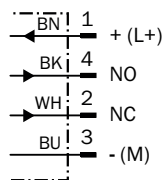
CONNECTION TYPE



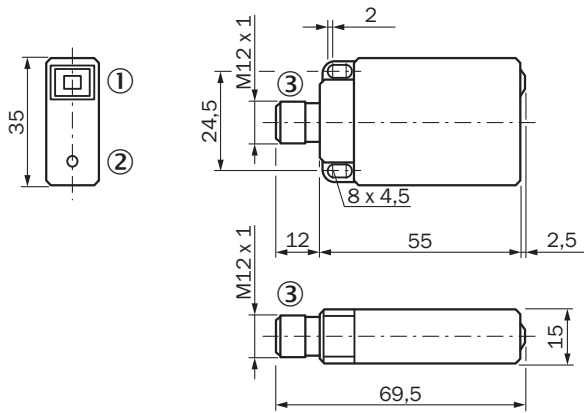
CONNECTION DIAGRAM



CONNECTION DIAGRAM CD-006



DIMENSIONAL DRAWING CQ35, CONNECTOR



Dimensions in mm (inch)

- ① Display LED
- ② Potentiometer
- ③ Connection

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6021464



SICK AG
WALDKIRCH
GERMANY
SICK.COM

SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

SICK
Sensor Intelligence