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Product data sheet



CQF16-06ENSEP1

CQF

CAPACITIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

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CQF16-06ENSEP1 | CQF

CAPACITIVE PROXIMITY SENSORS



Illustration may differ

Ordering information

Type	Part no.
CQF16-06ENSEP1	6068628

Included in delivery: BEF-WMCQF16 (1)

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

Detailed technical data

Features

Housing	Rectangular
Dimensions (W x H x D)	16 mm x 34 mm x 8 mm
Sensing range S_n	0.5 mm ... 6 mm
Installation type	Flush Non-flush
Switching frequency	10 Hz
Connection type	Cable with M8 male connector, 4-pin, 0.3 m [1]
Switching output	NPN
Output function	NO
Adjustment	Teach-in by wire (full or empty)
Enclosure rating	IP67, IP68, IP69K
Special features	Detection of water-based liquids with conductivity up to 50 mS/cm; container diameter: min. 8 mm; container thickness: 0.5 mm ... 6 mm (plastic), 0.5 mm ... 4 mm (glass)
Items supplied	Mounting bracket (1x)

[1] Do not bend below 0 °C.

Mechanics/electronics

Supply voltage	10 V ... 30 V
Ripple	≤ 10 %
Voltage drop	≤ 1.5 V DC [1]
Current consumption	13 mA [2]

[1] At I_a max.

[2] Without load.

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Time delay before availability	≤ 300 ms
Temperature drift (of S_r)	± 20 %
EMC	EN 60947-5-2
Continuous current I_a	≤ 100 mA
Cable material	PVC
Conductor size	0.14 mm²
Short-circuit protection	✓
Reverse polarity protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	30 g, 11 ms / 6 pos., 6 neg. per axis, 10 ... 150 Hz, 1.0 mm / 15 g
Ambient operating temperature	–25 °C ... +80 °C
Ambient temperature, storage	–40 °C ... +85 °C
Housing material	Plastic, PBT
Tightening torque, max.	0.2 Nm
Protection class	III
UL File No.	NRKH.E191603

[1] At I_a max.

[2] Without load.

Safety-related parameters

$MTTF_D$	1,972 years
DC_{avg}	0 %
T_M (mission time)	20 years

Installation note

Remark	Associated graphic see "Installation"
A	≥ 10 mm (at factory setting)
B	16 mm
F	≥ 25 mm (at factory setting)

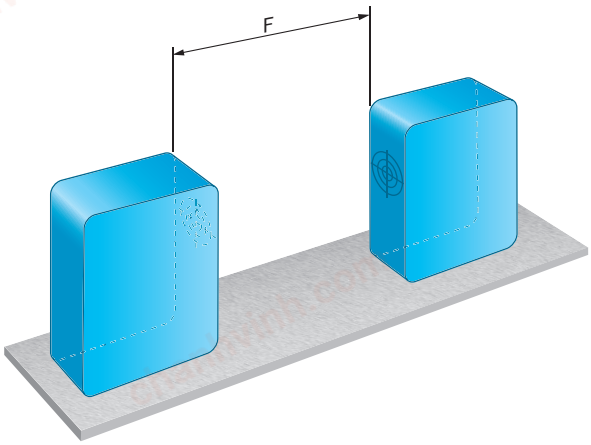
Classifications

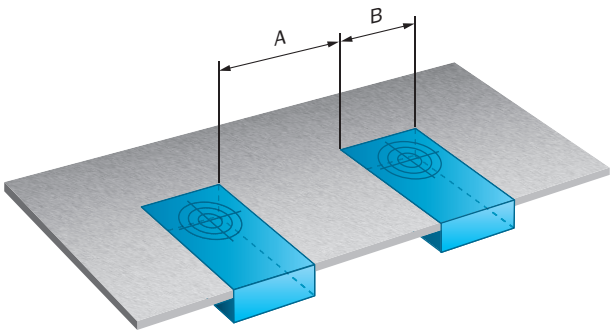
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ETIM 5.0	EC002715

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ETIM 6.0	EC002715
ETIM 7.0	EC002715
ETIM 8.0	EC002715
UNSPSC 16.0901	39122230

Installation note

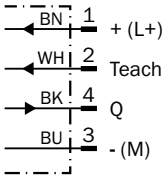




Connection diagram

Cd-405

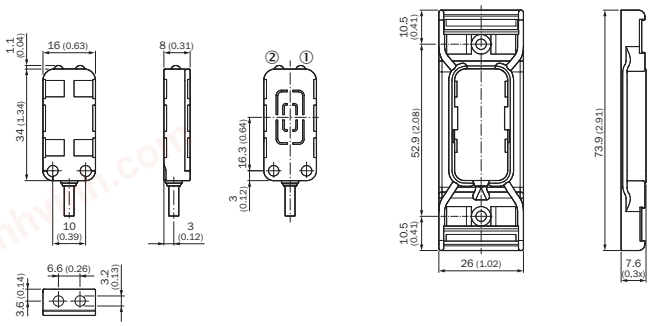




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Dimensional drawing (Dimensions in mm (inch))

Sensor with bracket (included in the scope of delivery)



① Yellow LED indicator: Switching output
② LED indicator green: Supply voltage active

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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."

WORLDWIDE PRESENCE:

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