



CM30-25NPP-KC1

CM

CAPACITIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
CM30-25NPP-KC1	6020477

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

Detailed technical data

Features

Housing	Cylindrical thread design
Thread size	M30 x 1.5
Diameter	Ø 30 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	PNP
Output function	Complementary
Electrical wiring	DC 4-wire
Adjustment	Potentiometer (Sensitivity)
Enclosure rating	IP67 ¹⁾

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 36 V DC
Ripple	≤ 10 % ¹⁾
Voltage drop	≤ 2.5 V DC ²⁾
Current consumption	10 mA ³⁾
Time delay before availability	≤ 100 ms
Hysteresis	4 % ... 20 %

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.).

Reproducibility	≤ 5 % ^{4) 5)}
Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2 ⁶⁾
Continuous current I_a	≤ 200 mA
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 ... +80 °C
Housing material	Plastic, PBT
Housing length	91 mm
Thread length	50 mm
Tightening torque, max.	7.5 Nm
Items supplied	Mounting nut, PA12 plastic (2x) Screwdriver for potentiometer adjustment (1 x)

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.).

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	30 mm
B	60 mm
C	30 mm
D	75 mm
E	14.5 mm In critical distances, the sensor should be tested in the application

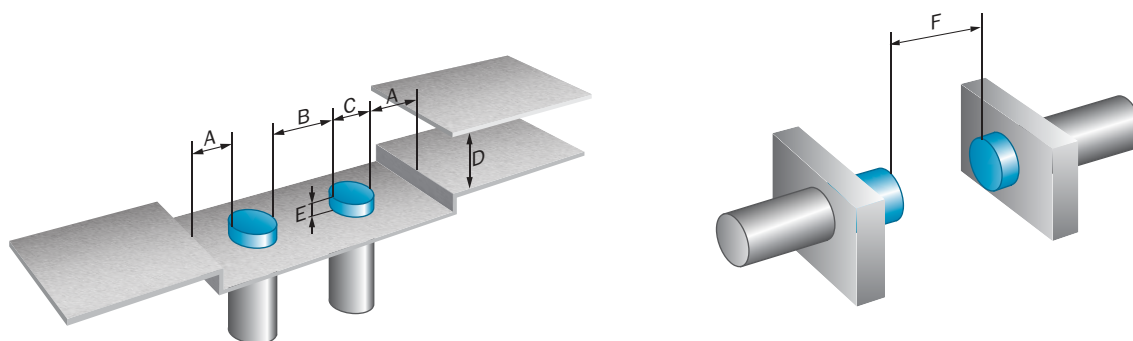
Classifications

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

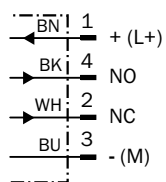
Installation note

Non-flush installation



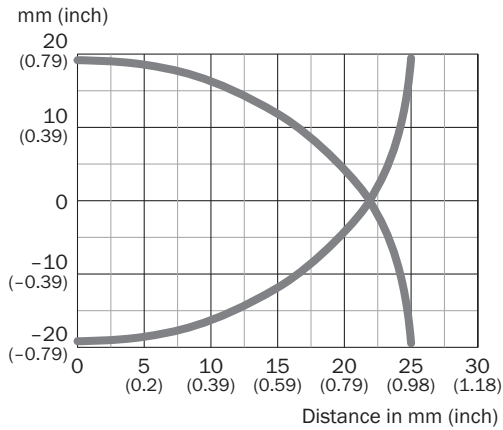
Connection diagram

Cd-006



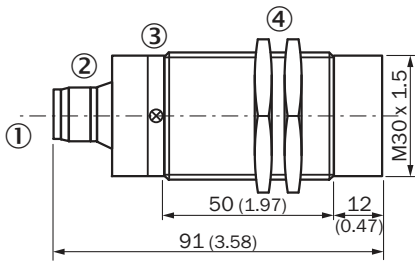
Characteristic curve

CM30, Non-flush installation



Dimensional drawing (Dimensions in mm (inch))



CM30, non-flush, connector



- ① Connection
- ② Potentiometer
- ③ Display LED
- ④ Fastening nuts (2 x); 36 mm hex, plastic

Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting plate for M30 sensors, steel, zinc coated, without mounting hardware	BEF-WG-M30	5321871
	Mounting bracket for M30 sensors, steel, zinc coated, without mounting hardware	BEF-WN-M30	5308445

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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