CM12-08EBP-KW1

CM

CAPACITIVE PROXIMITY SENSORS

Illustration may differ

Ordering information

Type	Part no.
CM12-08EBP-KW1	6051029

Other models and accessories ➜ www.sick.com/CM
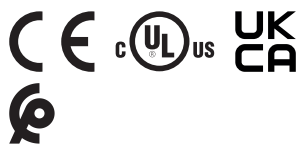
Detailed technical data

Features

Housing	Metric
Thread size	M12 x 1
Diameter	Ø 12 mm
Sensing range S_n	0.5 mm ... 8 mm [1] 0.5 mm ... 4 mm [2]
Safe sensing range S_a	5.76 mm
Installation type	Non-flush / flush [3]
Switching frequency	15 Hz
Connection type	Cable, 4-wire, 2 m [4]
Switching output	PNP / NPN
Switching output detail	PNP / NPN
Output function	Programmable
Output characteristic	Wire configurable [5]
Electrical wiring	DC 4-wire
Adjustment	
Teach-in button	Sensitivity
Wire/pin	Sensitivity
Enclosure rating	IP68 (According to EN 60529) [6]
Items supplied	Mounting nut, PA12 plastic (2x)

[1] For non-flush installation.

[2] For flush mounting.

[3] For flush mounting, Teach-in necessary.

[4] Do not bend below 0 °C.

[5] Automatic detection.

[6] 1.3 m water depth / 60 min.

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Product data sheet | 2025-04-04 16:45:45
Subject to change without notice

Mechanics/electronics

Supply voltage	10 V DC ... 36 V DC
Ripple	≤ 10 % [1]
Voltage drop	≤ 2.5 V DC [2]
Current consumption	12 mA [3]
Time delay before availability	≤ 120 ms
Hysteresis	3 % ... 20 %
Reproducibility	≤ 5 % [4] [5]
EMC	According to EN 60947-5-2 [6]
Continuous current I_a	≤ 200 mA
Cable material	PVC
Conductor size	0.14 mm²
Short-circuit protection	✓
Power-up pulse 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
Housing length	84.7 mm
Thread length	46.5 mm
Tightening torque, max.	≤ 1 Nm
UL File No.	NRKH.E191603

[1] Of Ub.

[2] At I_a max.

[3] Without load.

[4] Of Sr.

[5] Supply voltage U_B and constant ambient temperature Ta.

[6] For non-flush installation min. 1 x Sn and sensor grounded.

Safety-related parameters

$MTTF_D$	603 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	8 mm
B	12 mm
C	12 mm
D	12 mm
E	8 mm
F	6 x S_n (max. 48 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 diagram
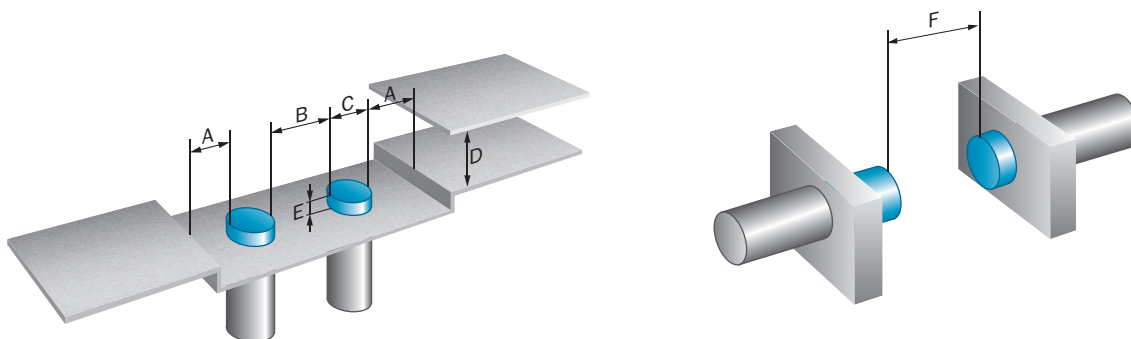
BN	+ (L+)
BK	NO/NC
WH	Teach
BU	- (M)
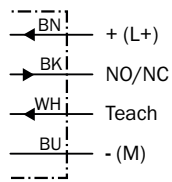
Response diagram

Distance in mm (inch)
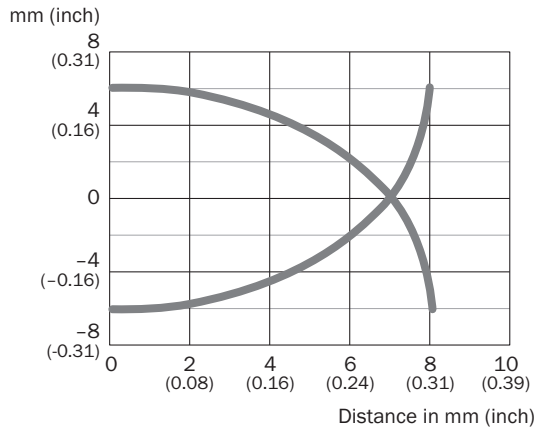
Dimensional drawing (Dimensions in mm (inch))

78 (3.07)
40 (1.57)
26 (1.02)
10.7 (0.42)
M12x1
LED ①
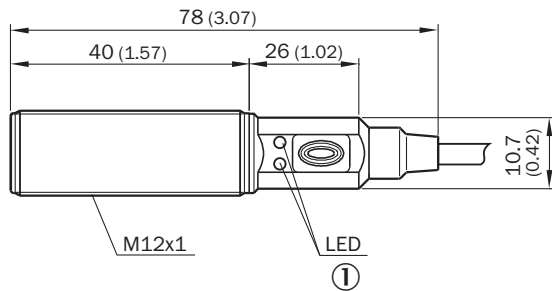
Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	• **Description:** Mounting plate for M12 sensors • **Material:** Steel • **Details:** Steel, zinc coated • **Items supplied:** Without mounting hardware	BEF-WG-M12	5321869

	Brief description	Type	Part no.
	• **Description:** Mounting bracket for M12 sensors • **Material:** Steel • **Details:** Steel, zinc coated • **Items supplied:** Without mounting hardware	BEF-WN-M12	5308447
Universal bar clamp systems			
	• **Description:** Plate N05 for universal clamp bracket, M12 • **Material:** Steel, zinc diecast • **Details:** Zinc plated steel (sheet), Zinc die cast (clamping bracket) • **Items supplied:** Universal clamp (5322626), mounting hardware • **Usable for:** IMA, IMF, M12 round sensors, UC4, V12-2, MultiV, MultiLine, W4-3, MultiV, MultiLine	BEF-KHS-N05	2051611

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