



## CM

Tried-and-tested sensors for object detection and level measurement

**CAPACITIVE PROXIMITY SENSORS**

**SICK**  
Sensor Intelligence.



Technical data overview

<b>Housing</b>	Cylindrical thread design
<b>Thread size</b>	M12 x 1 M18 x 1 M30 x 1.5
<b>Sensing range S<sub>n</sub></b>	4 mm ... 25 mm (depending on type)
<b>Housing material</b>	Plastic
<b>Enclosure rating</b>	IP68 IP69K IP67 (depending on type)
<b>Connection</b>	Male connector / cable (depending on type)
<b>Electrical wiring</b>	DC 4-wire / AC 2-wire (depending on type)

Product description

Capacitive proximity sensors can detect all powdery, granulated, liquid, and solid materials – even through plastic or glass walls. SICK’s capacitive proximity sensors feature extremely high electromagnetic compatibility (EMC), which prevents false switches and sensor failure.

At a glance

- Cylindrical housing in M12, M18, and M30 models
- Detects powders, granulates, liquids, and solids
- High electromagnetic compatibility
- Electrical configuration: DC 2 and 4-wire
- Supply voltage: 10 V DC to 36 V DC
- Optical adjustment indicator
- Sensing ranges of up to 25 mm
- Enclosure rating: IP 65, IP 68, IP 69K

Your benefits

- Even functions reliable in harsh industrial environments, which reduces machine maintenance costs and downtimes
- Quick and easy adjustment can be made via the potentiometer or teach button to save valuable time during commissioning
- Highly flexible range of applications thanks to compact housing and universal mounting systems
- High shock and vibration resistance and minimal sensitivity to dust and moisture ensure reliable object detection and reduce machine maintenance costs
- Optical adjustment indicator ensures reliable object detection to minimize potential machine failures

Fields of application

- Detection of solar wafers in the solar and electronics industry
- Detection of aluminum, cardboard, and paper in the packaging industry
- Detection of wood in wood processing machines
- Detection of rubber and plastic granulates in the plastics industry
- Detection of various liquids in the pharmaceuticals and chemicals industry

## Ordering information

Other models and accessories → [www.sick.com/CM](http://www.sick.com/CM)

Sensing range S <sub>n</sub>	Installation type	Electrical wiring	Connection type	Switching output	Output function	Type	Part no.
0.5 mm ... 8 mm <sup>1)</sup> 0.5 mm ... 4 mm <sup>2)</sup>	Non-flush, flush	DC 4-wire	Cable, 4-wire	PNP, NPN	Programmable	CM12-08EBP-KW1	6051029
			Male connector M12, 4-pin	PNP, NPN	Programmable	CM12-08EBP-KC1	6051030
0 mm ... 8 mm	Non-flush, flush	DC 4-wire	Male connector M12, 4-pin	PNP, NPN	Programmable (factory setting: normally closed)	CM12-08EBO-KC1	6078709
2 mm ... 16 mm	Flush	AC 2-wire	Cable, 2-wire	-	NC or NO	CM30-16BAP-KW1	6028411
3 mm ... 12 mm	Non-flush	DC 4-wire	Cable, 4-wire	NPN	Complementary	CM18-12NNP-EW1	6058150
						CM18-12NNP-KW1	6021457
				PNP	Complementary	CM18-12NPP-EW1	6058148
						CM18-12NPP-KW1	6020389
			Male connector M12, 4-pin	NPN	Complementary	CM18-12NNP-EC1	6058151
						CM18-12NNP-KC1	6021458
				PNP	Complementary	CM18-12NPP-EC1	6058149
						CM18-12NPP-KC1	6020410
3 mm ... 16 mm	Flush	DC 4-wire	Cable, 4-wire	NPN	Complementary	CM30-16BNP-EW1	6058154
				PNP	Complementary	CM30-16BPP-EW1	6058152
			Male connector M12, 4-pin	NPN	Complementary	CM30-16BNP-EC1	6058155
				PNP	Complementary	CM30-16BPP-EC1	6058153
3 mm ... 8 mm	Flush	DC 4-wire	Cable, 4-wire	NPN	Complementary	CM18-08BNP-EW1	6058146
						CM18-08BNP-KW1	6021455
				PNP	Complementary	CM18-08BPP-EW1	6058144
						CM18-08BPP-KW1	6020136
			Male connector M12, 4-pin	NPN	Complementary	CM18-08BNP-EC1	6058147
						CM18-08BNP-KC1	6021456
				PNP	Complementary	CM18-08BPP-EC1	6058145
						CM18-08BPP-KC1	6020388

<sup>1)</sup> For non-flush installation.

<sup>2)</sup> For flush mounting.

Sensing range $S_n$	Installation type	Electrical wiring	Connection type	Switching output	Output function	Type	Part no.
4 mm ... 25 mm	Non-flush	AC 2-wire	Cable, 2-wire	-	NC or NO	CM30-25NAP-KW1	6028413
		DC 4-wire	Cable, 4-wire	NPN	Complementary	CM30-25NPP-EW1	6058158
				PNP	Complementary	CM30-25NPP-EW1	6058156
		Male connector M12, 4-pin	NPN	Complementary	CM30-25NPP-EC1	6058159	
			PNP	Complementary	CM30-25NPP-EC1	6058157	

<sup>1)</sup> For non-flush installation.

<sup>2)</sup> For flush mounting.

## 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:

Contacts and other locations –[www.sick.com](http://www.sick.com)