



Capacitive Proximity Sensors Cylindrical threaded housing, CM12

CM12-08EBP-KW1



Model Name > [CM12-08EBP-KW1](#)
Part No. > [6051029](#)



At a glance

- High electromagnetic compatibility
- Compact sensor with long sensing range of up to 8 mm
- Teach-button for teaching in the background and/or the object (also possible via an external cable)
- Dynamic Teach for teaching in the background and/or the object
- Automatic detection of NPN output or PNP output load
- Teach-in procedure allows you to switch between the NO and NC functions

Your benefits

- Its high electromagnetic compatibility prevents switching errors and increases machine availability
- Its long sensing range and compact design allow the sensor to be used in a number of different applications
- The compact sensor design saves installation space
- Fast sensor configuration possible using Teach-in pushbutton or external control cable
- The Dynamic Teach function can be used to familiarize the sensor with the object/medium. This enables more reliable detection and thus increases the machine's throughput
- Less variants (NO/NC, NPN/PNP, flush/non-flush) means that fewer parts need to be stored
- Since measurements can also be made through the wall of the tank or container, there is no need to drill holes, reducing installation time



Features

Housing:	Cylindrical
Thread size:	M12 x 1
Sensing range Sn:	8 mm
Assured sensing range Sa:	5.76 mm
Installation type:	Non-flush/flush ¹⁾
Sensitivity adjustment:	Teach-in button External Teach-in
Switching frequency:	Ca. 15 Hz
Output type:	NPN, PNP
Output function:	Programmable
Electrical wiring:	DC 4-wire
Enclosure rating::	IP 68 ^{2) 3)}
Connection type:	Cable, 4-wire, 2 m ⁴⁾

Output characteristic:

Wire configurable

¹⁾ For flush mounting, Teach-in necessary ²⁾ According to EN 60529 ³⁾ 1.3 m water depth/60 min ⁴⁾ Do not bend below 0 °C

Mechanics/electronics

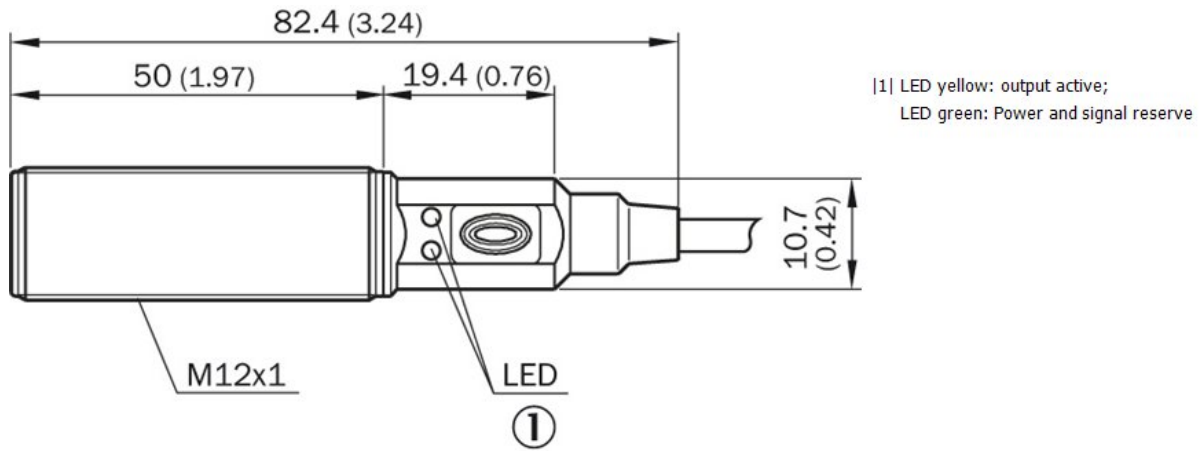
Supply voltage:	10 V DC ... 40 V DC
Ripple:	$\leq 10\%$ ¹⁾
Voltage drop:	$\leq 2.5\text{ V DC}$ ²⁾
Power consumption:	$\leq 12\text{ mA}$ ³⁾
Time delay before availability:	$\leq 120\text{ ms}$
Hysteresis:	3 % ... 20 %
Repeatability:	$\leq 5\%$ ⁴⁾ ⁵⁾
EMC:	According to EN 60947-5-2 ⁶⁾
Output current I _a :	$\leq 200\text{ mA}$
Cable material:	PVC
Conductor cross-section:	0.34 mm ²
Short-circuit protection:	✓
Reverse polarity protection:	✓
Power-up pulse protection:	✓
Shock/vibration:	30 g, 11 ms/10 ... 55 Hz, 1 mm
Ambient operating temperature:	-20 °C ... 85 °C
Ambient storage temperature:	-40 °C ... 85 °C
Housing material:	PBT
Thread length:	46.5 mm
Tightening torque, max.:	$\leq 1\text{ Nm}$

¹⁾ Of U_b ²⁾ At I_a max ³⁾ Without load ⁴⁾ Of S_r ⁵⁾ U_b and T_a constant ⁶⁾ For non-flush installation min. 1 x Sn and sensor grounded

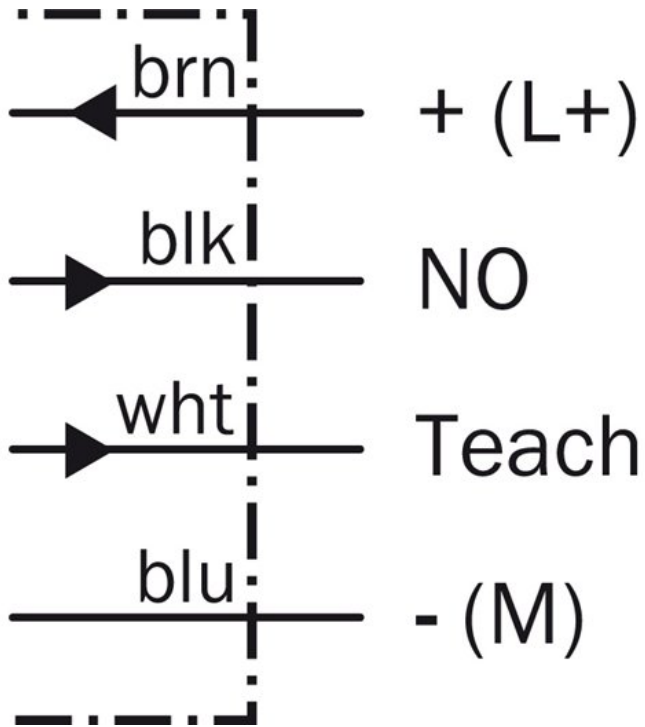
Reduction factors

Note:	The values are reference values which may vary
Metal:	1
Water:	1
PVC:	Ca. 0.4
Oil:	Ca. 0.25

Dimensional drawing



Connection diagram



Australia

Phone +61 3 9457 0600
1800 334 802 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail sac@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Ceská Republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail kundenservice@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6801000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 3358 1341
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederlands

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail austefjord@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail admin@sicksgp.com.sg

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886-2-2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 8865 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 800-325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com