



Capacitive Proximity Sensors Cylindrical threaded housing, CM18

CM18-12NNP-KC1



Model Name > [CM18-12NNP-KC1](#)
Part No. > [6021458](#)



At a glance

- M18 - Cylindrical housing
- Adjustable sensing range of 1 to 8 mm flush and 1 to 12 mm non-flush installation
- Best-in-class electromagnetic compatibility
- Short-circuit reverse polarity and power-up pulse suppression protection
- LED status indicator
- Sensitivity control with potentiometer
- IP 67 enclosure rating
- Complementary output function

Your benefits

- Space saving installation with M18 cylindrical mounting
- Quick and easy adjustment via potentiometer saves installation and setup time
- Simple and save detection alternative to photoelectric and inductive sensors in applications such as detecting product in a sealed box, container or tank
- High EMC immunity prevents false switching, which reduces material loss and increases throughput
- High shock and vibration resistance increases sensor life and reduces maintenance costs



Features

Housing:	Cylindrical
Thread size:	M18 x 1
Sensing range Sn:	12 mm
Assured sensing range Sa:	8.64 mm
Installation type:	Non-flush
Sensitivity adjustment:	Potentiometer, 270°
Switching frequency:	30 Hz
Output type:	NPN
Output function:	Complementary
Electrical wiring:	DC 4-wire
Enclosure rating:	IP 67 ¹⁾
Connection type:	Connector M12, 4-pin

¹⁾ According to EN 60529

Mechanics/electronics

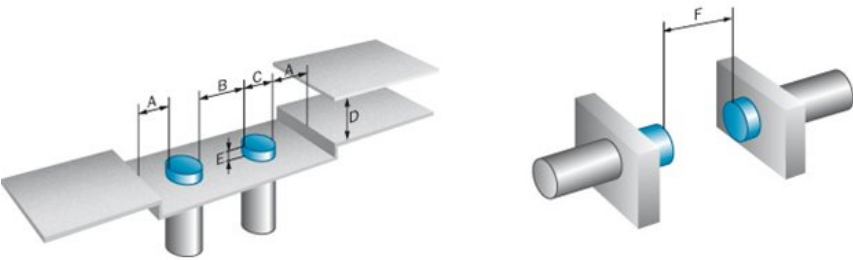
Supply voltage:	10 V DC ... 40 V DC
Ripple:	$\leq 10\%$ ¹⁾
Voltage drop:	$\leq 2.5\text{ V DC}$ ²⁾
Power consumption:	$\leq 10\text{ mA}$ ³⁾
Time delay before availability:	$\leq 100\text{ ms}$
Hysteresis:	$4\% \dots 20\%$
Repeatability:	$\leq 5\%$ ^{4) 5)}
Temperature drift (% of Sr):	$\pm 10\%$
EMC:	According to EN 60947-5-2 ⁶⁾
Output current Ia:	$\leq 200\text{ mA}$
Short-circuit protection:	✓
Reverse polarity protection:	✓
Power-up pulse protection:	✓
Shock/vibration:	30 g, 11 ms/10 ... 55 Hz, 1 mm
Ambient operating temperature:	$-25\text{ °C} \dots 80\text{ °C}$
Housing material:	PBT
Housing length:	91.5 mm
Thread length:	46.5 mm
Tightening torque, max.:	2.6 Nm

¹⁾ Of Ub ²⁾ At I_a max ³⁾ Without load ⁴⁾ Of Sr ⁵⁾ Ub and Ta constant ⁶⁾ In EMC critical applications, conducted interference levels may lie in the frequency range of the oscillator. This can cause changes to the output signal.(see operating instructions)

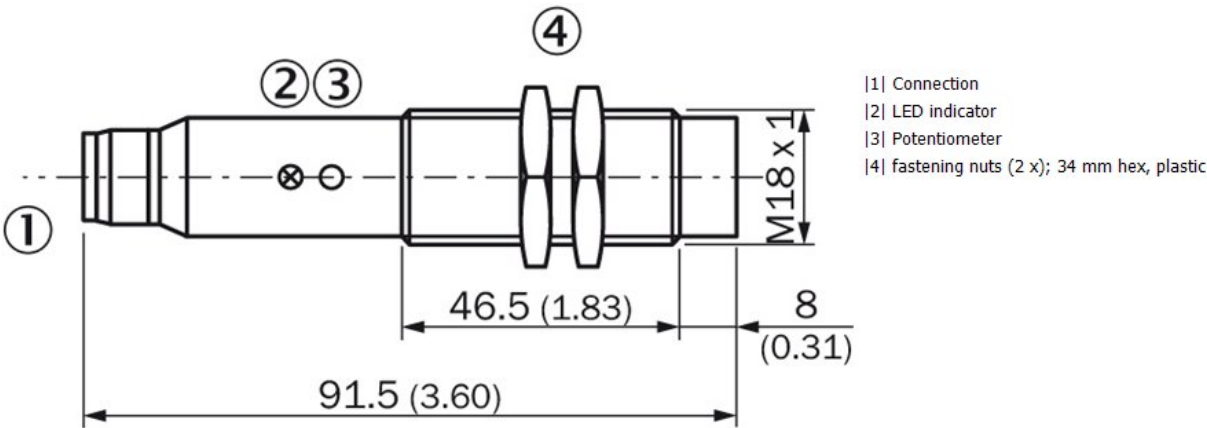
Reduction factors

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

Installation note

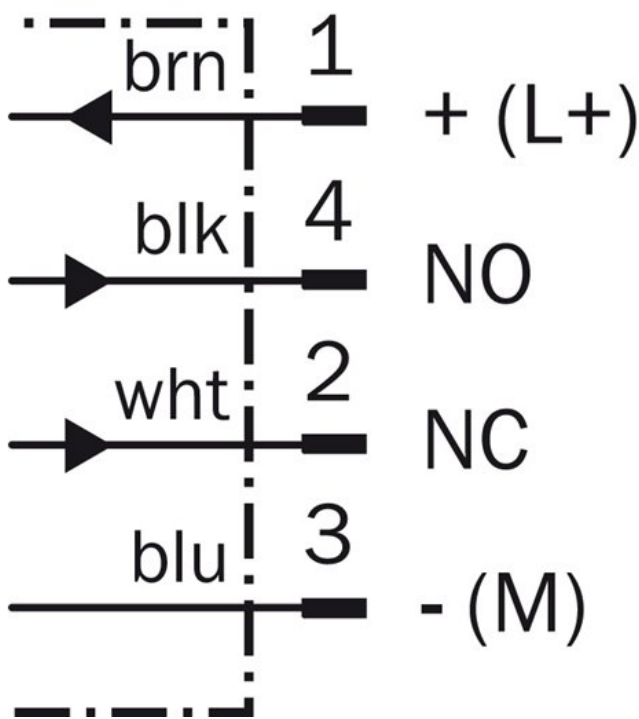


Dimensional drawing

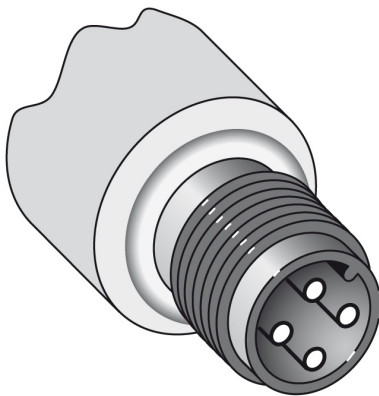


All dimensions in mm (inch)

Connection diagram



Connection type



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