

ONLINE DATA SHEET
www.mysick.com

Inductive proximity sensors
Cylindrical threaded housing, IM12

IM12-06BPO-NC1



SICK
Sensor Intelligence.

SICK
Sensor Intelligence.

Inductive proximity sensors
Cylindrical threaded housing, IM12

Model Name > IM12-06BPO-NC1
Part No. > 6027574





At a glance

- Stainless steel housing (316L/1.4404)
- Extremely watertight (IP 68/IP 69K)
- Triple sensing distance
- High resistance to mechanical stress
- Watertight housing suitable for use in hygienic and wash down areas
- Resistant to aggressive cleaning agents
- Visual adjustment indicator via output LED

Your benefits

- Less machine downtime due to rugged sensor design
- Cost reduction due to long service life even under the most extreme ambient conditions
- Quick and easy installation due to adjustment indicator via LEDs
- Large operating reserve due to triple operating distance
- High resistance to shock and impact due to stainless steel sensing face
- No restrictions on cleaning agents or processes, ensuring reliable operation

Features

Design:	Cylindrical
Thread size:	M12 x 1
Sensing range Sn:	6 mm
Assured sensing range Sa:	4.86 mm
Installation type:	Flush
Switching frequency:	600 Hz
Output type:	PNP
Output function:	NC
Electrical wiring:	DC 3-wire
Enclosure rating:	IP 68 IP 69K [1)]
Electrical connection:	Connector M12, 4-pin

[1)] According to EN 60529

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC
Residual ripple:	≤ 20 % [1)]

© SICK AG. Subject to change without notice.

Voltage drop:	≤ 2 V [2]
Power consumption:	≤ 10 mA [3]
Time delay before availability:	≤ 40 ms
Hysteresis:	1 % ... 15 %
Repeatability::	≤ 5 % [4] [5]
Temperature drift (of Sr):	≤ 10 %
EMC:	According to EN 60947-5-2
Output current Ia:	≤ 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 temperature operation:	-25 °C ... +85 °C
Housing material:	Stainless steel, Stainless steel V4A (1.4435, 316L)
Housing cap material:	Metal
Housing length:	60 mm
Thread length:	41 mm
Tightening torque, max.:	≤ 20 Nm

[1] Of V_S [2] At I_a max [3] Without load [4] Of Sr [5] UB = 20 V DC ... 30 V DC, TA = 23 °C ± 5 °C

Reduction factors

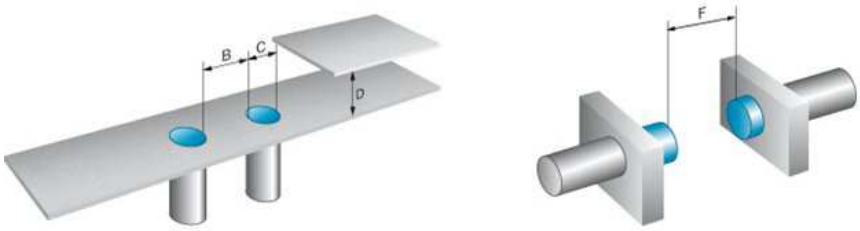
Note:	The values are reference values which may vary
Carbon steel St37 (Fe):	Ca. 1
Copper (Cu):	Ca. 0.85
Aluminum (Al):	Ca. 1
Brass (Br):	Ca. 1.3
Stainless steel (V4A, 316L):	Ca. 0.45

Installation note

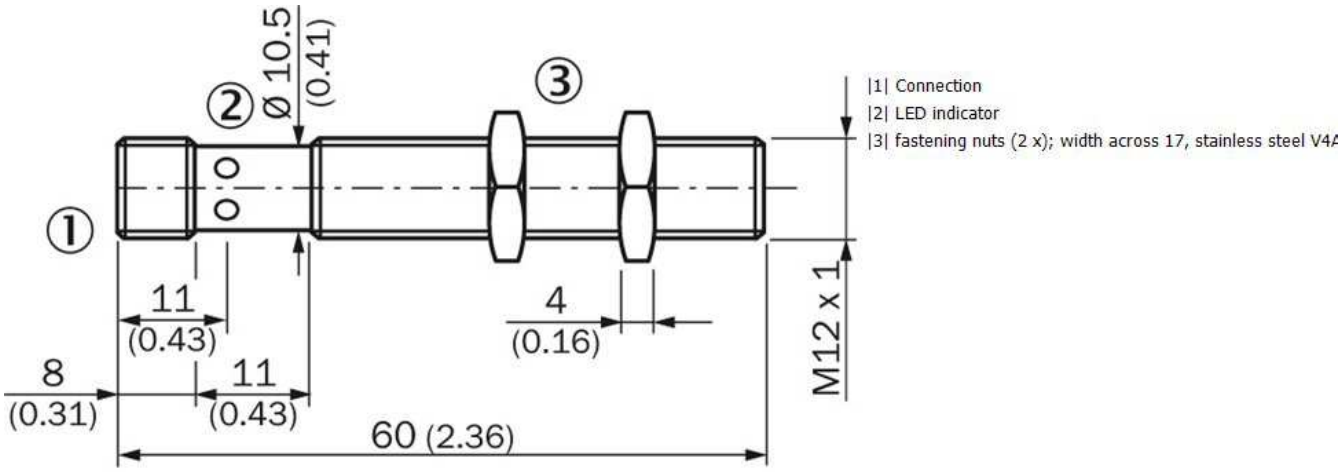
A:	6 mm
B:	38 mm
C:	12 mm
D:	18 mm
F:	60 mm
Remark:	Associated graphic see "Installation"

© SICK AG. Subject to change without notice.

Installation note



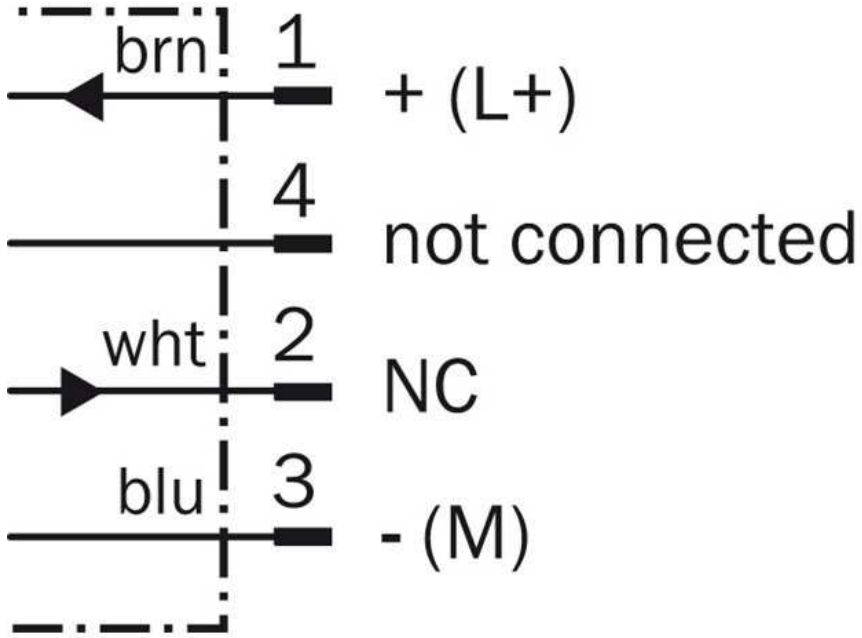
Dimensional drawing



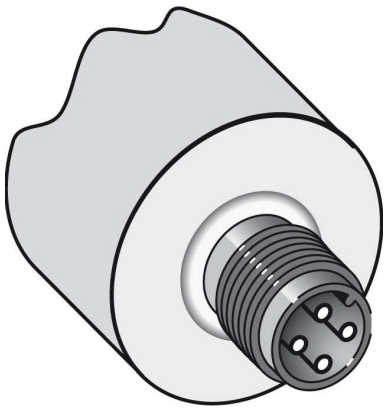
All dimensions in mm (inch)

© SICK AG. Subject to change without notice.

Connection diagram



Connection type



© SICK AG. Subject to change without notice.

A4 4c int43

Australia
Phone +61 3 9457 0600
1800 33 48 02 – 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 marketing@sick.com.br

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

Česká 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 info@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 +972-4-6881000
E-Mail info@sick-sensors.com

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

Japan
Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

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

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

Norge
Phone +47 67 81 50 00
E-Mail sick@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 sales.gsg@sick.com

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 88 65 878
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**

SICK
Sensor Intelligence.