



Inductive proximity sensors
Cylindrical threaded housing, IMP12

IMP12-1B5NOVC0D



Model Name > [IMP12-1B5NOVC0D](#)
Part No. > [6050128](#)



At a glance

- Pressure resistant up to 500 bar
- Expected service life of up to 1 million pressure cycles
- Sensing range of 1.5 mm flush
- IP 68
- Stainless steel housing with active surface made from stable high-performance ceramic
- State-of-the-art ASIC technology from SICK
- Gas-tight at the sensor face
- 3 and 4-wire versions

Your benefits

- Reduced maintenance costs
- Extremely resilient and durable
- Up to 50 times longer service life compared to conventional sensors under pressure cycles
- Simple compensation of cylinder tolerances
- Simple integration due to small design
- Controlled piston deceleration
- Increased piston service life due to collision prevention at the end of the work cycle



Features

| | |
|---------------------------|----------------------|
| Design: | Cylindrical |
| Thread size: | M12 x 1 |
| Sensing range Sn: | 1.5 mm |
| Assured sensing range Sa: | 1.2 mm |
| Pressure resistance: | ≤ 500 bar |
| Installation type: | Flush |
| Switching frequency: | 600 Hz |
| Output type: | NPN |
| Output function: | NC |
| Electrical wiring: | DC 3-wire |
| Enclosure rating: | IP 68 ¹⁾ |
| Electrical connection: | Connector M12, 4-pin |

¹⁾ Sensing face

Mechanics/electronics

| | |
|---------------------------------|--------------------------------|
| Supply voltage: | 10 V DC ... 30 V DC |
| Vacuum resistance: | 10-8Torr ¹⁾ |
| Residual ripple: | ≤ 20 % ²⁾ |
| Voltage drop: | ≤ 2 V ³⁾ |
| Power consumption: | ≤ 10 mA ⁴⁾ |
| Time delay before availability: | ≤ 50 ms |
| Hysteresis: | 1 % ... 15 % ⁵⁾ |
| Repeatability: | ≤ 7 % ^{6) 7)} |
| Temperature drift (of Sr): | ≤ 15 % |
| EMC: | According to EN 60947-5-2 |
| Output current I _a : | ≤ 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 ... +80 °C |
| Housing material: | Stainless steel, V2A |
| Housing cap material: | Ceramics, ZrO ₂ |
| Size support ring: | 10 mm x 5.9 mm x 1 mm |
| Size sealing ring: | 5.3 mm x 2.4 mm |
| Material sealing ring: | FPM |
| Housing length: | 78 mm |
| Thread length: | 42 mm |
| Tightening torque, max.: | ≤ 40 Nm |

¹⁾ Front ²⁾ Of V_S ³⁾ With I_a = 200 mA ⁴⁾ Without load ⁵⁾ Typ. 8% ^{6) 7)}

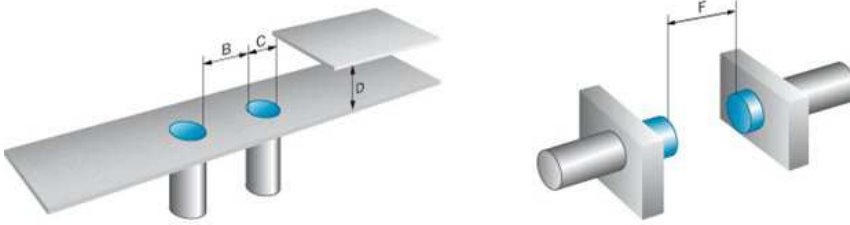
Reduction factors

| | |
|-----------------------------|--|
| Note: | The values are reference values which may vary |
| Carbon steel St37 (Fe): | 1 |
| Stainless steel (V2A, 304): | Ca. 0.75 |
| Copper (Cu): | Ca. 0.12 |
| Aluminum (Al): | Ca. 0.2 |
| Brass (Br): | Ca. 0.34 |

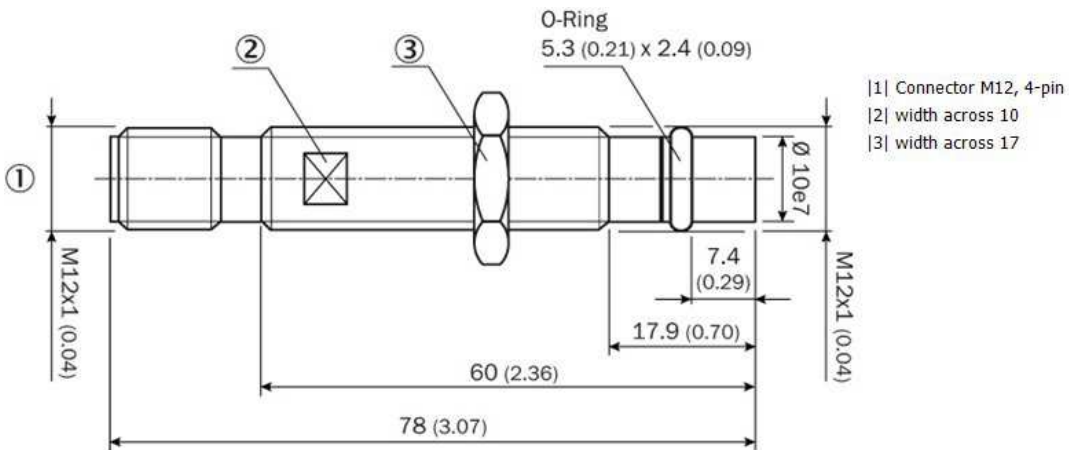
Installation note

Remark: Associated graphic see "Installation"

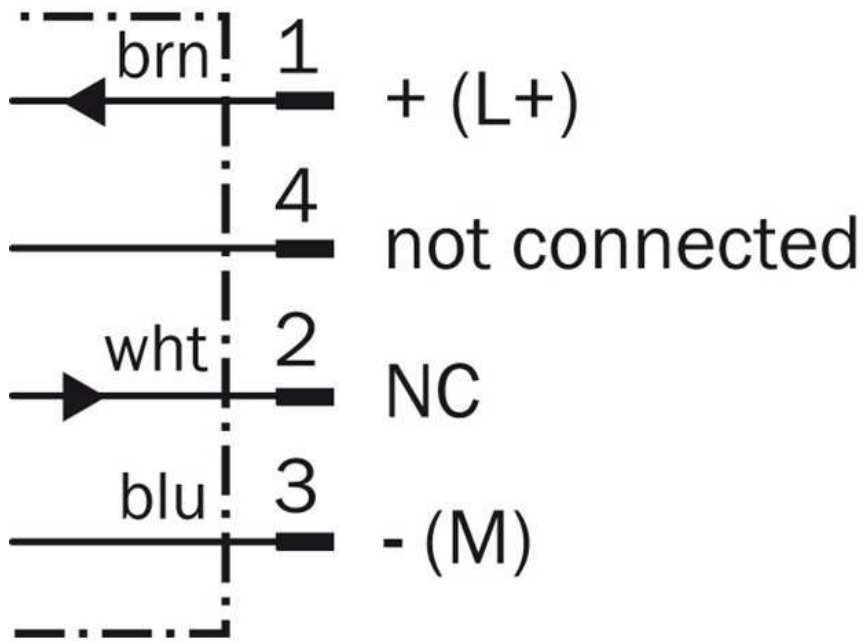
Installation note



Dimensional drawing



Connection diagram



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