



Inductive proximity sensors
Cylindrical threaded housing, IMP14

IMP14-03BPSVC0S



Model Name > [IMP14-03BPSVC0S](#)
Part No. > [6050137](#)



At a glance

- Pressure resistant up to 500 bar
- Expected service life of up to 1 million pressure cycles
- Sensing range of 3 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

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:	M14 x 1.5
Sensing range Sn:	3 mm
Assured sensing range Sa:	2.4 mm
Pressure resistance:	≤ 500 bar
Installation type:	Flush
Switching frequency:	500 Hz
Output type:	PNP
Output function:	NO
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:	≤ 4 % ^{6) 7)}
Temperature drift (of Sr):	15 %
EMC:	According to EN 60947-5-2 ⁸⁾
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, V4A
Housing cap material:	Ceramics, ZrO ₂
Size sealing ring:	11.5 mm x 2.0 mm
Material sealing ring:	NBR
Housing length:	65 mm
Thread length:	11 mm
Tightening torque, max.:	≤ 70 Nm

¹⁾ Front ²⁾ Of V ³⁾ S ⁴⁾ With I_a = 200 mA ⁵⁾ Without load ^{6) 7)} Typ. 8% ⁸⁾ IEC61000-4-4: 1kV

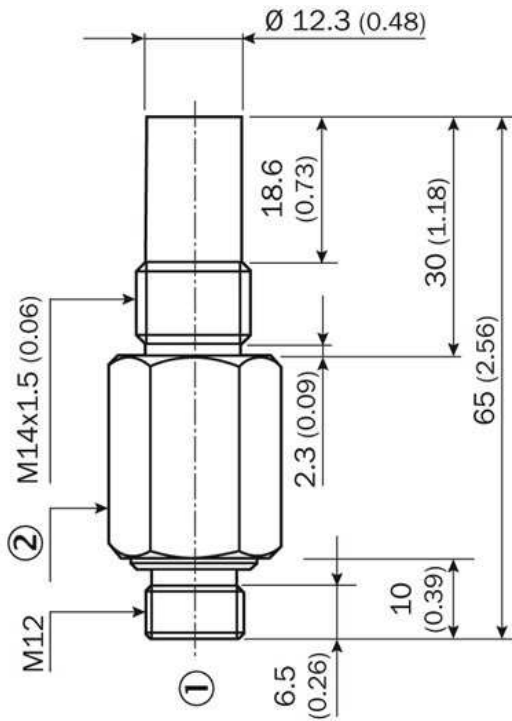
Reduction factors

Note:	The values are reference values which may vary
Carbon steel St37 (Fe):	1
Stainless steel (V2A, 304):	Ca. 0.85
Copper (Cu):	Ca. 0
Aluminum (Al):	Ca. 0
Brass (Br):	Ca. 0.15

Installation note

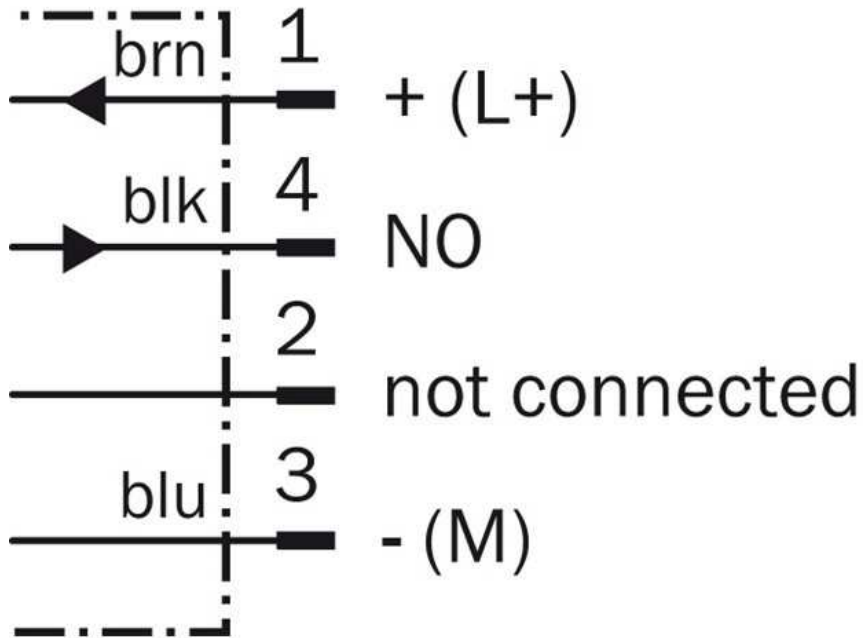
Remark:	Associated graphic see "Installation"
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Dimensional drawing



- [1] Connector M12, 4-pin
- [2] width across 19

Connection diagram



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