



Inductive proximity sensors
Cylindrical threaded housing, IMP05

IMP05-01BPSVU2S



Model Name > [IMP05-01BPSVU2S](#)
Part No. > [6050109](#)



At a glance

- Pressure resistant up to 500 bar
- Expected service life of up to 1 million pressure cycles
- Expanded temperature range of up to 100 °C
- Sensing range of 1 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:	M5 x 0.5
Sensing range Sn:	1 mm
Assured sensing range Sa:	0.8 mm
Pressure resistance:	≤ 500 bar
Installation type:	Flush
Switching frequency:	1,000 Hz
Output type:	PNP
Output function:	NO
Electrical wiring:	DC 3-wire
Enclosure rating:	IP 68 ¹⁾
Electrical connection:	Cable, 3-wire, 2 m

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:	≤ 30 ms
Hysteresis:	1 % ... 15 % ⁵⁾
Repeatability::	≤ 5 % ^{6) 7)}
Temperature drift (of Sr)::	± 10 %, ± 15 % ^{8) 9)}
EMC:	According to EN 60947-5-2
Output current Ia:	≤ 200 mA
Cable material:	PUR
Conductor cross-section:	0.14 mm ²
Cable diameter:	Ø 3.5 mm
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 ... +100 °C
Housing material:	Stainless steel, Phynox
Housing cap material:	Ceramics, ZrO ₂
Size support ring:	7.5 mm x 4.4 mm x 1 mm
Material support ring:	FPM
Housing length:	27 mm
Thread length:	5 mm
Tightening torque, max.:	≤ 5 Nm

1) Front 2) Of V_S 3) With Ia = 200 mA 4) Without load 5) Typ. 8% 6) 7) 8) -25 °C...+70 °C 9) +70 °C...+100 °C

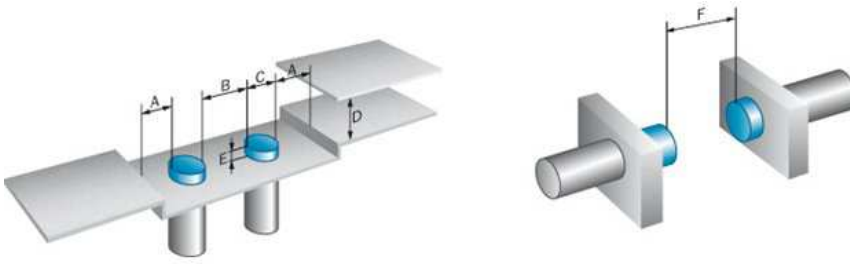
Reduction factors

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

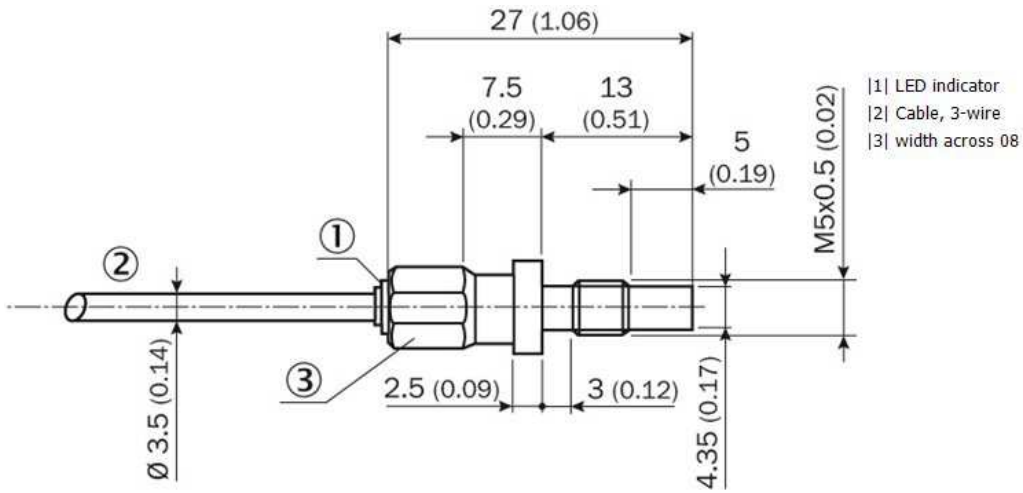
Installation note

Remark:	Associated graphic see "Installation"
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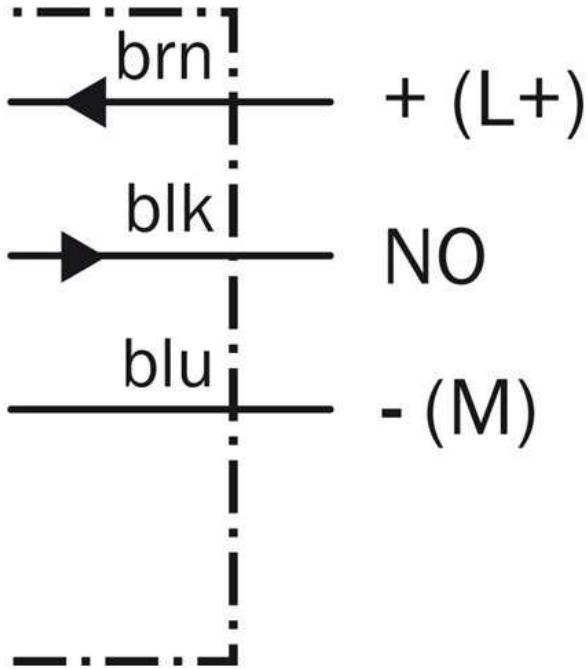
Installation note



Dimensional drawing



Connection diagram



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