

ONLINE DATA SHEET
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Inductive proximity sensors
Cylindrical threaded housing, IMP05

IMP05-01BPSVU2S



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Inductive proximity sensors
Cylindrical threaded housing, IMP05

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

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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 mm²
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, ZrO2
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

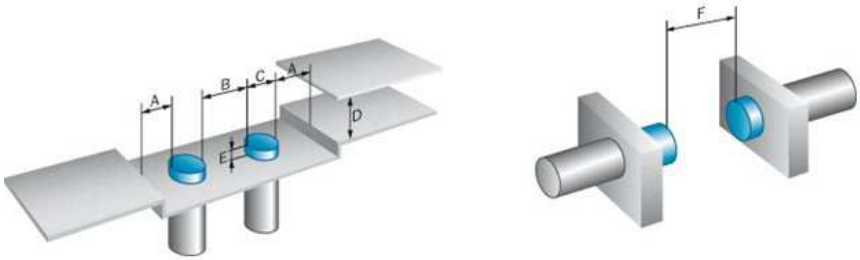
Note:	The values are reference values which may vary
Carbon steel St37 (Fe):	1
Stainless steel (V2A, 304):	0
Copper (Cu):	0
Aluminum (Al):	0
Brass (Br):	0

Installation note

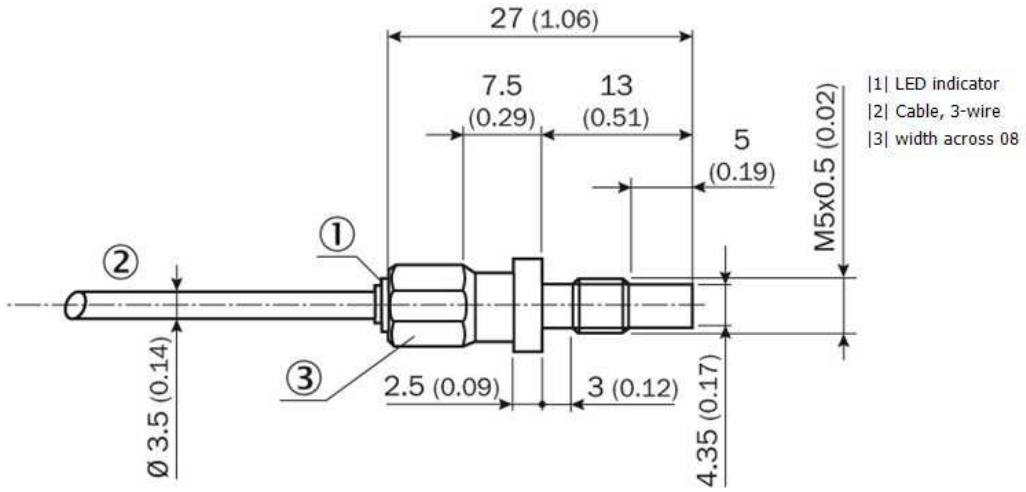
Remark:	Associated graphic see "Installation"

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Installation note

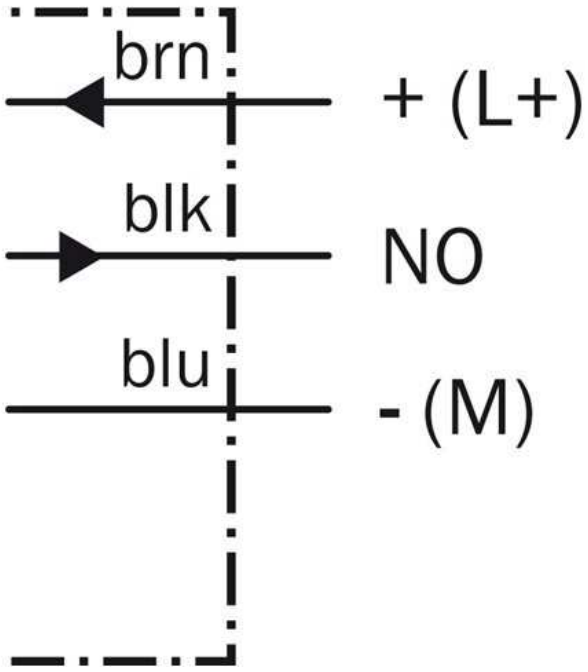


Dimensional drawing



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Connection diagram



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