

ONLINE DATA SHEET
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Inductive proximity sensors
Cylindrical threaded housing, IM05

IM05-1B5P0VT0S



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Inductive proximity sensors
Cylindrical threaded housing, IM05

Model Name > IM05-1B5POVT0S
Part No. > 6049740



At a glance

- Operating distance up to 1,5 mm
- Small housing sizes and low weight
- Integrated LED indicator and snubber circuit
- Rugged stainless steel housing
- Thread sizes M5 available

Your benefits

- Trouble-free installation in space-critical applications provides a high degree of design freedom, saving machine space
- Reliable detection of rapid handling and assembly processes increases throughput
- High-visibility indicator LED for simple monitoring of operational state reduces commissioning time
- High positioning accuracy increases machine throughput
- High resistance to shock and vibrations reduces maintenance costs

Features

Design:	Cylindrical
Thread size:	M5 x 0.5
Sensing range Sn:	1.5 mm
Assured sensing range Sa:	1.215 mm
Installation type:	Flush
Switching frequency:	3,000 Hz
Output type:	PNP
Output function:	NC
Electrical wiring:	DC 3-wire
Enclosure rating:	IP 67 [1]
Electrical connection:	Connector M8, 3-pin

[1] According to EN 60529

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC
Residual ripple:	≤ 20 % [1]
Voltage drop:	≤ 2 V [2]
Power consumption:	≤ 10 mA [3]

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Time delay before availability:	≤ 10 ms
Hysteresis:	1 % ... 10 %
Repeatability:	≤ 2 % [4]
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 ... 70 °C
Housing material:	Stainless steel
Housing cap material:	Plastic, PA 66
Housing length:	38 mm
Thread length:	22 mm
Tightening torque, max.:	≤ 1.8 Nm

[1] Of V_S [2] With Ia = 200 mA [3] Without load [4] Ub = 20 V DC ... 30 V DC, Ta = 23 °C ± 5 °C

Reduction factors

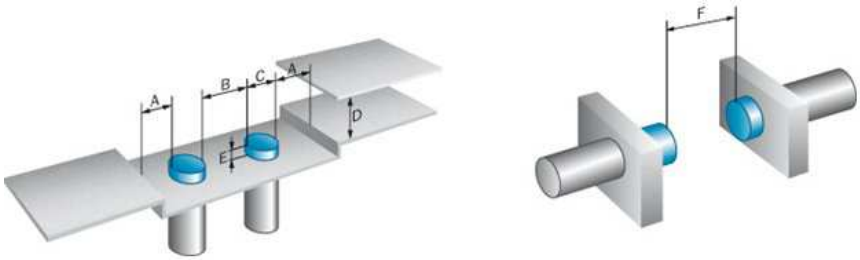
Note:	The values are reference values which may vary
Stainless steel (V2A, 304):	Ca. 0.75
Copper (Cu):	Ca. 0.4
Aluminum (Al):	Ca. 0.4
Brass (Br):	Ca. 0.5

Installation note

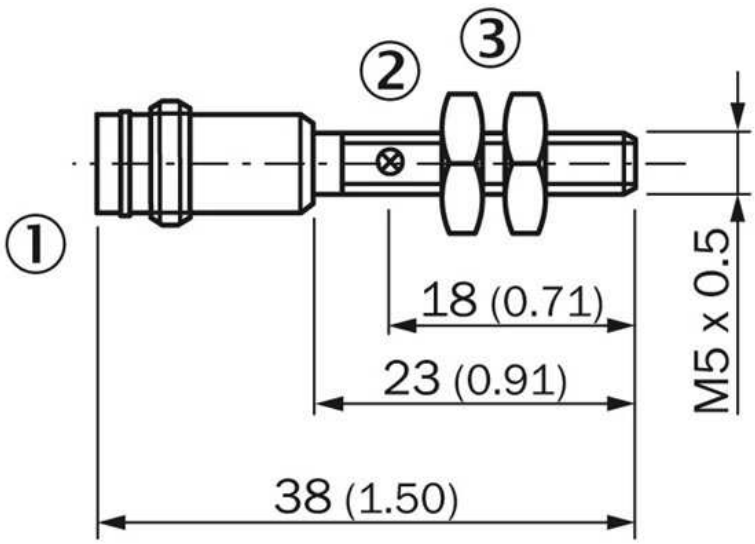
E:	0 mm
Remark:	Associated graphic see "Installation"

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Installation note



Dimensional drawing

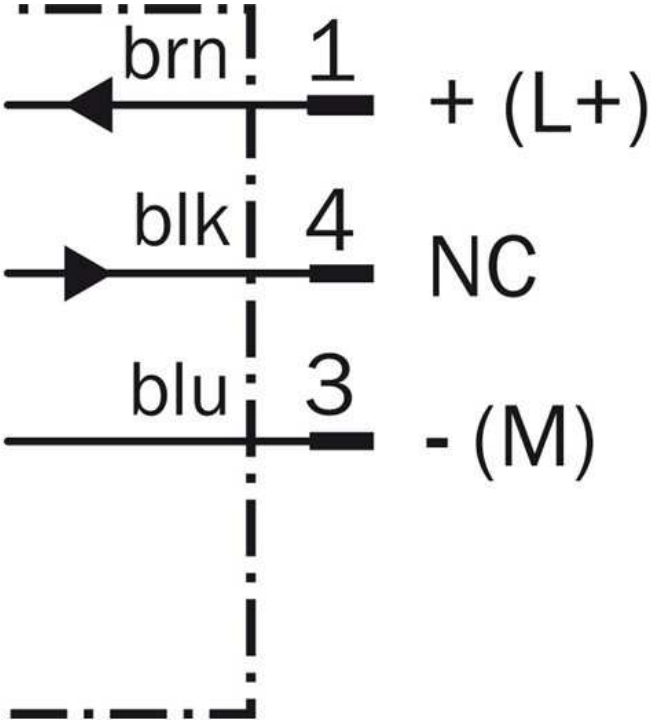


|1| Connection
|2| LED indicator
|3| fastening nuts (2 x); 7 mm hex, stainless steel

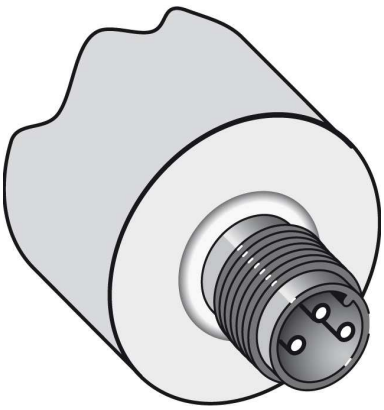
All dimensions in mm (inch)

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Connection diagram



Connection type



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A4 4c int43

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