



Inductive proximity sensors Cylindrical threaded housing, IM05

IM05-0B8NS-ZT1



Model Name > [IM05-0B8NS-ZT1](#)
Part No. > [6020158](#)



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

Housing:	Cylindrical
Thread size:	M5 x 0.5
Sensing range Sn:	0.8 mm
Assured sensing range Sa:	0.648 mm
Installation type:	Flush
Switching frequency:	5,000 Hz
Output type:	NPN
Output function:	NO
Electrical wiring:	DC 3-wire
Enclosure rating:	IP 67 ¹⁾
Connection type:	Connector M8, 3-pin

¹⁾ According to EN 60529

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC
Ripple:	≤ 20 % ¹⁾
Voltage drop:	≤ 2 V ²⁾
Power consumption:	≤ 10 mA ³⁾

Time delay before availability:	≤ 10 ms
Hysteresis:	1 % ... 10 %
Repeatability:	≤ 1.5 % ⁴⁾
Temperature drift (% of Sr):	≤ 10 %
EMC:	According to EN 60947-5-2
Output current I _a :	≤ 200 mA
Short-circuit protection:	✓
Reverse polarity protection:	✓
Power-up pulse protection:	-
Shock/vibration:	30 g, 11 ms/10 ... 55 Hz, 1 mm
Ambient operating temperature:	-25 °C ... 70 °C
Housing material:	Stainless steel, Stainless steel
Housing cap material:	Plastic, PA 66
Housing length:	38 mm
Thread length:	22 mm
Tightening torque, max.:	1.5 Nm

1) Of V_S ²⁾ With I_a = 200 mA ³⁾ Without load ⁴⁾ U_b = 20 V DC ... 30 V DC, T_a = 23 °C ± 5 °C

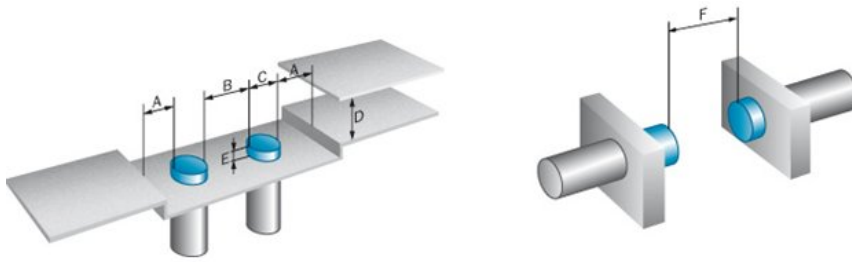
Reduction factors

Note:	The values are reference values which may vary
Stainless steel (V2A, 304):	Ca. 0.8
Copper (Cu):	Ca. 0.45
Aluminum (Al):	Ca. 0.5
Brass (Br):	Ca. 0.55

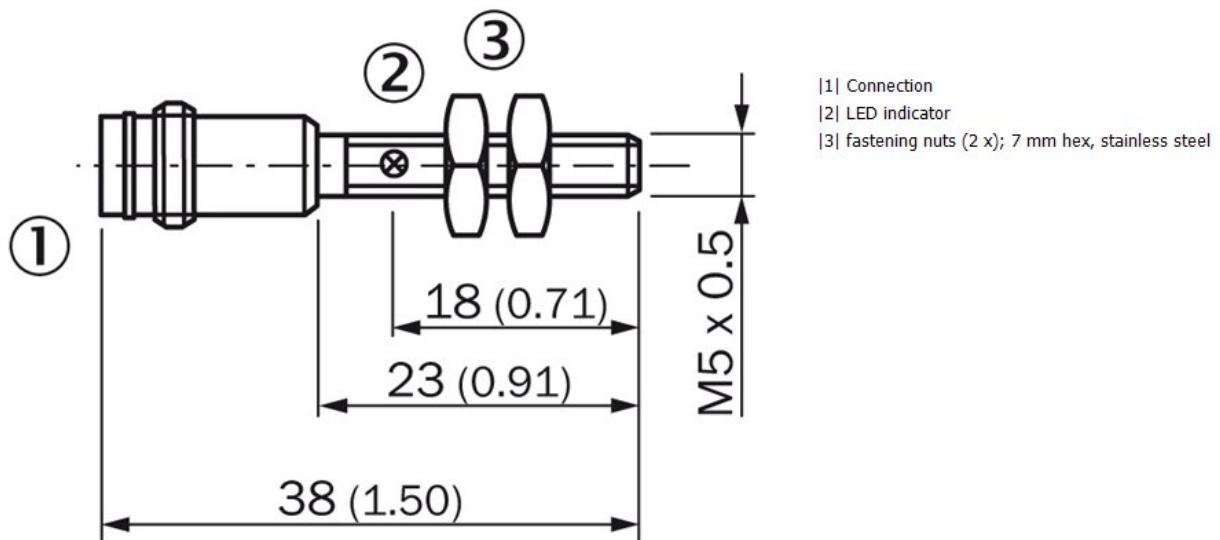
Installation note

A:	0.8 mm
B:	0 mm
C:	5 mm
D:	2.4 mm
E:	0 mm
F:	7 mm
Remark:	Associated graphic see "Installation"

Installation note

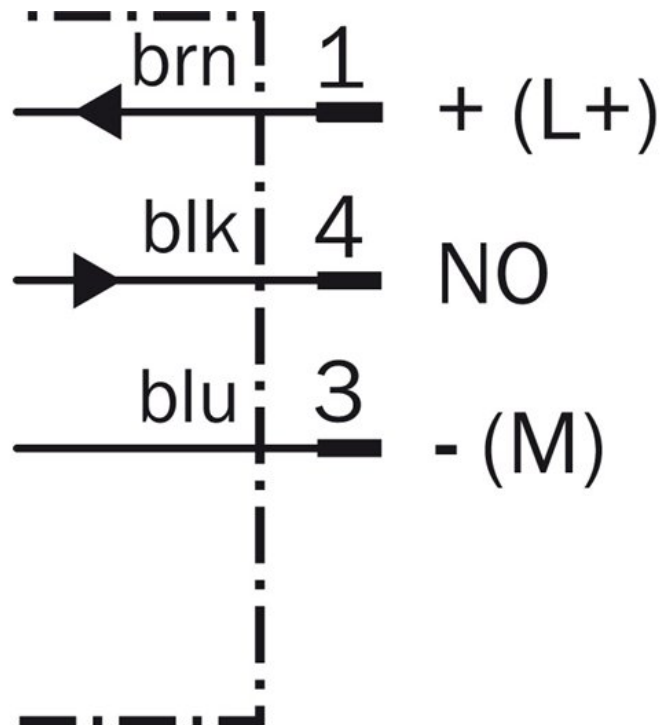


Dimensional drawing

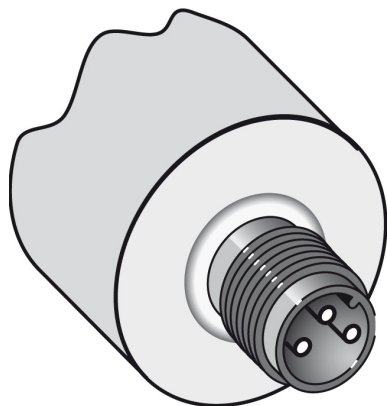


All dimensions in mm (inch)

Connection diagram



Connection type



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