



Inductive proximity sensors
Cylindrical threaded housing, IM04

IM04-0B6PS-ZU1



Model Name > **IM04-0B6PS-ZU1**
Part No. > **6020145**



At a glance

- Operating distance up to 0,6 mm
- Small housing sizes and low weight
- Integrated LED indicator and snubber circuit
- Rugged stainless steel housing
- Thread sizes M4 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: | M4 x 0.5 |
| Sensing range Sn: | 0.6 mm |
| Assured sensing range Sa: | 0.486 mm |
| Installation type: | Flush |
| Switching frequency: | 5,000 Hz |
| Output type: | PNP |
| Output function: | NO |
| Electrical wiring: | DC 3-wire |
| Enclosure rating: | IP 67 ¹⁾ |
| Connection type: | Cable, 3-wire, 2 m |

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: | ≤ 2 % ⁴⁾ |
| Temperature drift (% of Sr): | ≤ 10 % |
| EMC: | According to EN 60947-5-2 |
| Output current I _a : | ≤ 100 mA |
| Cable material: | PUR |
| Conductor cross-section: | 0.06 mm ² |
| Cable diameter: | 2.6 mm |
| 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, Polyester |
| Housing length: | 22 mm |
| Thread length: | 19 mm |
| Tightening torque, max.: | ≤ 0.8 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

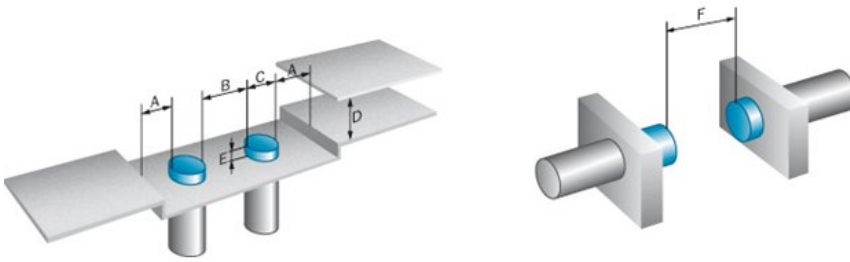
Reduction factors

| | |
|-----------------------------|--|
| Note: | The values are reference values which may vary |
| Stainless steel (V2A, 304): | Ca. 0.8 |
| Copper (Cu): | Ca. 0.5 |
| Aluminum (Al): | Ca. 0.55 |
| Brass (Br): | Ca. 0.65 |

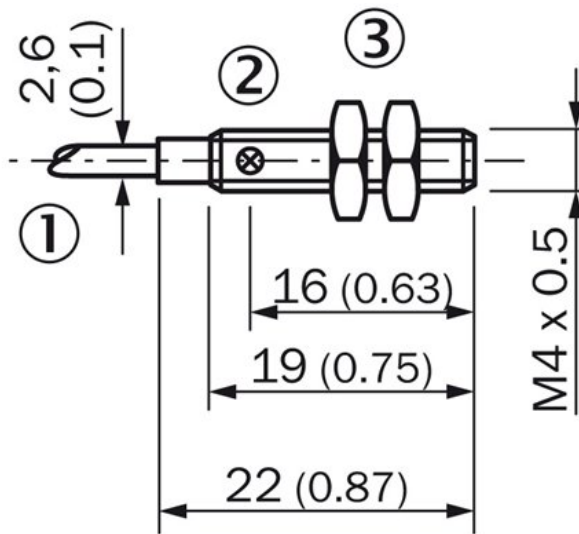
Installation note

| | |
|---------|---------------------------------------|
| A: | 0 mm |
| B: | 0 mm |
| C: | 4 mm |
| D: | 1.8 mm |
| E: | 0 mm |
| F: | 5 mm |
| Remark: | Associated graphic see "Installation" |

Installation note



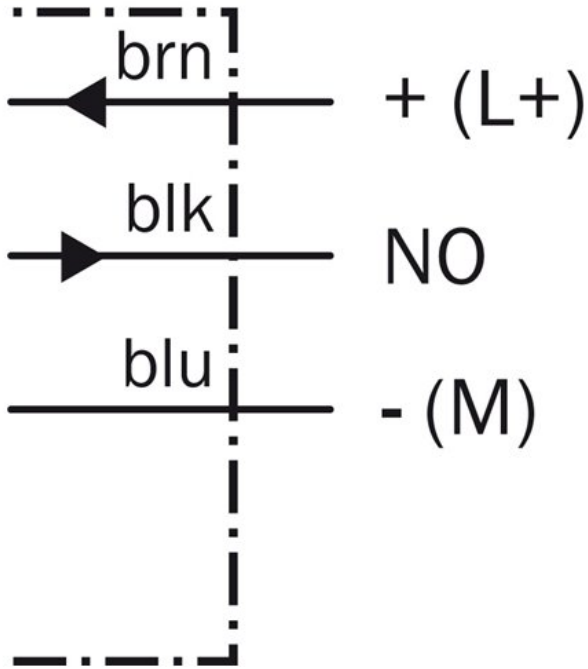
Dimensional drawing



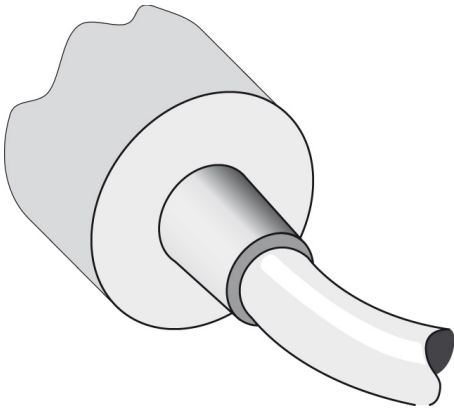
- |1| Connection
- |2| LED indicator
- |3| fastening nuts (2 x); 6 mm hex, stainless steel

All dimensions in mm (inch)

Connection diagram



Connection type



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