



Inductive proximity sensors
Cylindrical threaded housing, IM12

IM12-06BNS-NC1



Model Name > [IM12-06BNS-NC1](#)
Part No. > [6027573](#)



At a glance

- Stainless steel housing (316L/1.4404)
- Extremely watertight (IP 68/IP 69K)
- Triple sensing distance
- High resistance to mechanical stress
- Watertight housing suitable for use in hygienic and wash down areas
- Resistant to aggressive cleaning agents
- Visual adjustment indicator via output LED

Your benefits

- Less machine downtime due to rugged sensor design
- Cost reduction due to long service life even under the most extreme ambient conditions
- Quick and easy installation due to adjustment indicator via LEDs
- Large operating reserve due to triple operating distance
- High resistance to shock and impact due to stainless steel sensing face
- No restrictions on cleaning agents or processes, ensuring reliable operation



Features

| | |
|---------------------------|-------------------------------|
| Design: | Cylindrical |
| Thread size: | M12 x 1 |
| Sensing range Sn: | 6 mm |
| Assured sensing range Sa: | 4.86 mm |
| Installation type: | Flush |
| Switching frequency: | 600 Hz |
| Output type: | NPN |
| Output function: | NO |
| Electrical wiring: | DC 3-wire |
| Enclosure rating: | IP 68 ¹⁾ IP 69K |
| Electrical connection: | Connector M12, 4-pin |

¹⁾ According to EN 60529

Mechanics/electronics

| | |
|------------------|----------------------|
| Supply voltage: | 10 V DC ... 30 V DC |
| Residual ripple: | ≤ 20 % ¹⁾ |

| | |
|---------------------------------|---|
| Voltage drop: | $\leq 2 \text{ V}^{2)}$ |
| Power consumption: | $\leq 10 \text{ mA}^{3)}$ |
| Time delay before availability: | $\leq 40 \text{ ms}$ |
| Hysteresis: | 1 % ... 15 % |
| Repeatability:. | $\leq 5 \%$ ^{4) 5)} |
| Temperature drift (of Sr): | $\leq 10 \%$ |
| EMC: | According to EN 60947-5-2 |
| Output current I _a : | $\leq 200 \text{ mA}$ |
| 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 ... +85 °C |
| Housing material: | Stainless steel, Stainless steel V4A (1.4435, 316L) |
| Housing cap material: | Metal |
| Housing length: | 60 mm |
| Thread length: | 41 mm |
| Tightening torque, max.: | $\leq 20 \text{ Nm}$ |

1) Of V_S ²⁾ At I_a max ³⁾ Without load ⁴⁾ Of Sr ⁵⁾ UB = 20 V DC ... 30 V DC, TA = 23 °C ± 5 °C

Reduction factors

| | |
|------------------------------|--|
| Note: | The values are reference values which may vary |
| Carbon steel St37 (Fe): | Ca. 1 |
| Copper (Cu): | Ca. 0.85 |
| Aluminum (Al): | Ca. 1 |
| Brass (Br): | Ca. 1.3 |
| Stainless steel (V4A, 316L): | Ca. 0.45 |

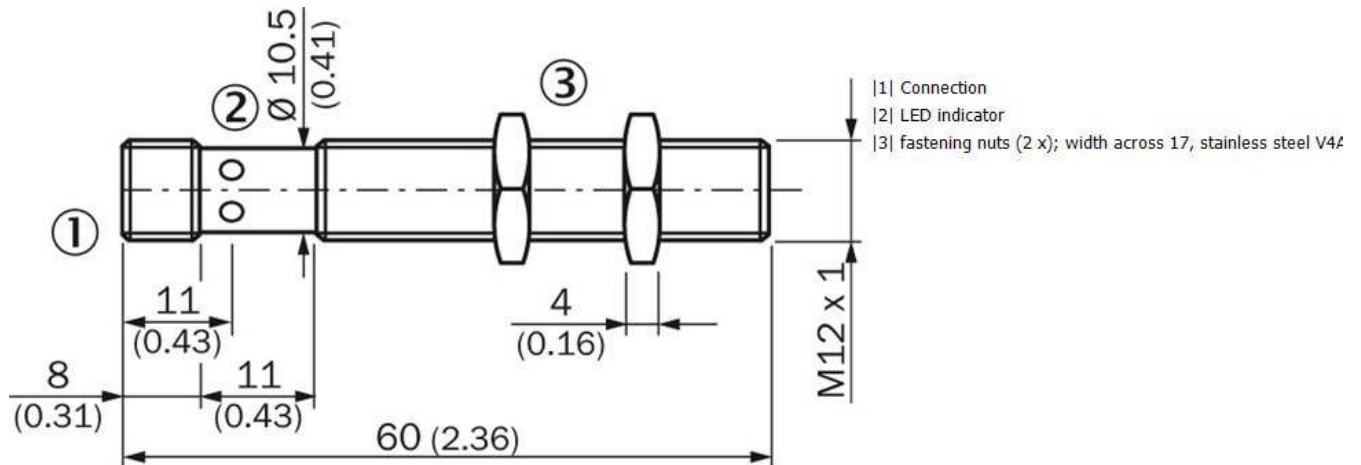
Installation note

| | |
|---------|---------------------------------------|
| A: | 6 mm |
| B: | 38 mm |
| C: | 12 mm |
| D: | 18 mm |
| F: | 60 mm |
| Remark: | Associated graphic see "Installation" |

Installation note

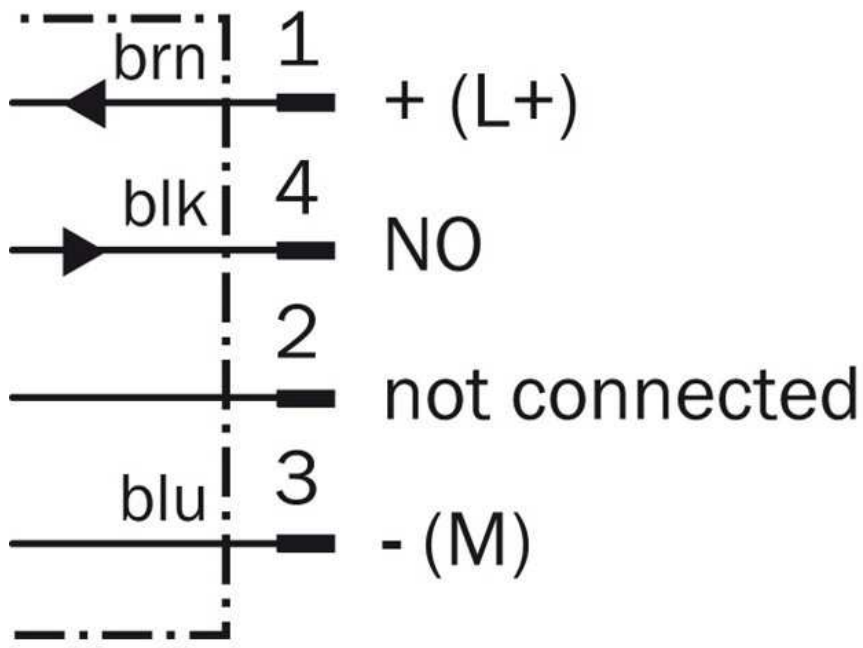


Dimensional drawing

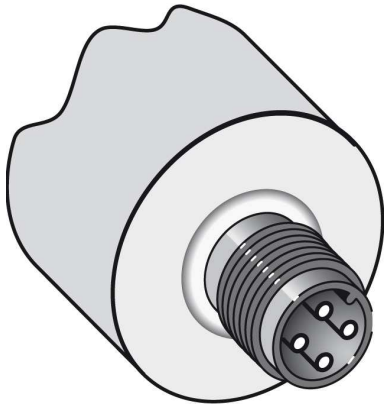


All dimensions in mm (inch)

Connection diagram



Connection type



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