



## Inductive proximity sensors Cylindrical threaded housing, IM12

IM12-02BDS-ZC1

im0015370

**Model Name** > **IM12-02BDS-ZC1**  
**Part No.** > **6020312**



**At a glance**

- Size M12
- IP 67 enclosure rating
- Operating temperature from -25° C to +75° C

**Your benefits**

- Reduced machine downtime
- Reduced mechanical damage
- Fewer maintenance costs due to longer service life
- High resistance to shock and vibrations



**Features**

Design:	Cylindrical
Thread size:	M12 x 1
Sensing range Sn:	2 mm
Assured sensing range Sa:	1.62 mm
Installation type:	Flush
Switching frequency:	1,500 Hz
Output function:	NO
Electrical wiring:	DC 2-wire
Enclosure rating:	IP 67 <sup>1)</sup>
Electrical connection:	Connector M12, 4-pin
Housing:	Standard

<sup>1)</sup> According to EN 60529

**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC
Residual ripple:	≤ 10 %
Voltage drop:	≤ 2.8 V <sup>1)</sup>
Time delay before availability:	≤ 50 ms
Hysteresis:	2 % ... 10 %
Repeatability:.	≤ 5 % <sup>2) 3)</sup>
Temperature drift (of Sr):	± 10 %
EMC:	According to EN 60947-5-2
Output current I <sub>a</sub> :	≤ 100 mA
Off-state current:	≤ 0.8 mA

Load resistance, min.:	≥ 3 mA
Wire-break protection:	0
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:	Metal, Nickel-plated brass
Housing cap material:	Plastic
Housing length:	75 mm
Thread length:	53 mm
Tightening torque, max.:	10 Nm

1) At I<sub>a</sub> max 2) U<sub>b</sub> and T<sub>a</sub> constant 3) Of Sr

### Reduction factors

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Note:	The values are reference values which may vary
Stainless steel (V2A, 304):	Ca. 0.8
Copper (Cu):	Ca. 0.3
Aluminum (Al):	Ca. 0.35
Brass (Br):	Ca. 0.5

### Installation note

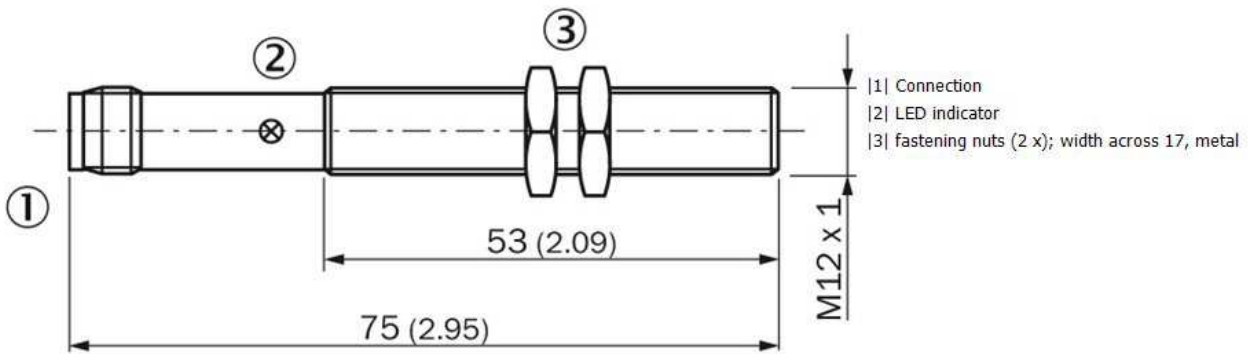
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A:	6 mm
B:	12 mm
C:	12 mm
D:	6 mm
E:	2.4 mm
F:	16 mm
Remark:	Associated graphic see "Installation"

## Installation note

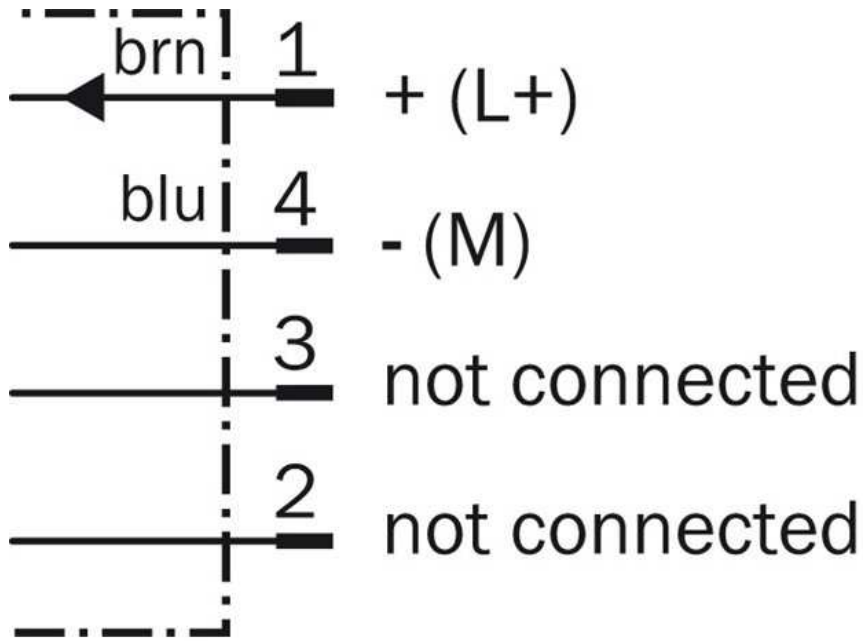


## Dimensional drawing

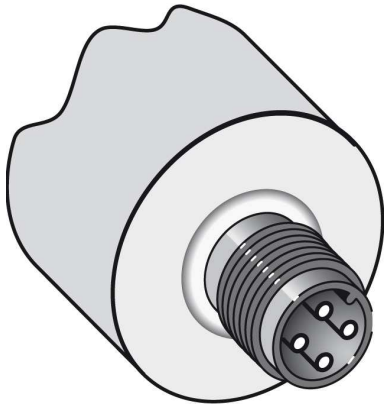


All dimensions in mm (inch)

Connection diagram



Connection type



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