



Inductive proximity sensors
Cylindrical threaded housing, IM12 NAMUR

IM12-04N-N-ZW0



Model Name > [IM12-04N-N-ZW0](#)
Part No. > [6021125](#)



At a glance

- Operating distance up to 4 mm
- NAMUR
- ATEX device category 1G and 2G
- Output according to DIN EN 60947-5-6
- Types M12

Your benefits

- Exceptional protection in explosive areas
- Category 1G and 2G for zones 0 and 1 provides protection in explosive areas
- Output according to DIN EN 60947-5-6



Features

Housing:	Cylindrical
Thread size:	M12 x 1
Sensing range Sn:	4 mm
Assured sensing range Sa:	3.24 mm
Installation type:	Non-flush
Switching frequency:	1,500 Hz
Output type:	NAMUR
Output function:	NC
Enclosure rating:	IP 67 ¹⁾
Connection type:	Cable, 2-wire, 2 m

¹⁾ According to EN 60529

Mechanics/electronics

Supply voltage:	7.5 V DC ... 25 V DC ¹⁾
Power consumption:	≤ 30 mA ²⁾
Current consumption, sensor is activated:	≤ 1 mA
Current consumption, sensor is not activated:	≥ 2.2 mA
Hysteresis:	1 % ... 15 %
Temperature drift (% of Sr):	± 10 %
EMC:	According to EN 60947-5-6
Cable material:	PVC
Conductor cross-section:	0.34 mm ²
Cable diameter:	4.9 mm

Shock/vibration:	30 g, 11 ms/10 ... 55 Hz, 1 mm
Ambient operating temperature:	-20 °C ... 70 °C
Housing material:	Metal, Nickel-plated brass
Housing cap material:	Plastic, PBT
Housing length:	30 mm
Thread length:	25 mm
Tightening torque, max.:	7 Nm
Items supplied:	Fastening nuts (2 x); width across 17, metal
EC Approval Certificate:	PTB 03 ATEX 2037
Hazardous area category:	1G, 2G
Input voltage U_i max.:	15 V ³⁾
Input power P_i max.:	120 mW ⁴⁾
Input current I_i max.:	50 mA ⁵⁾
Internal capacitance C_i max.:	140 nF ⁶⁾
Internal inductance L_i max.:	130 μ H ⁷⁾
Nominal voltage:	8.2 V DC
ATEX marking:	II 1 G Ex ia IIB T6 Ta: -20 °C ... +55 °C, II 2 G Ex ia IIC T6 Ta: -20 °C ... +70 °C
Cable resistance:	50 Ω

1) 2) When used outside the hazardous area 3) 4) 5) 6) 7) For connection only to a separately certified, intrinsically safe electrical circuit

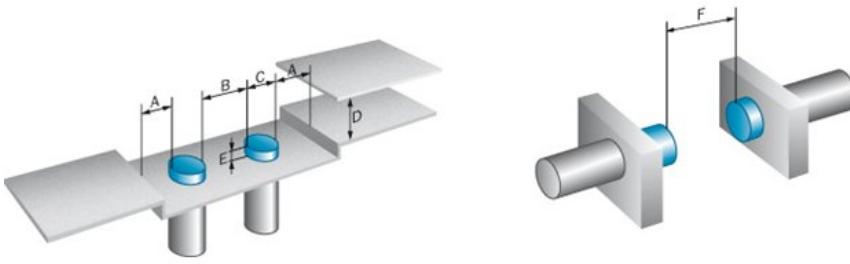
Reduction factors

Note:	The values are reference values which may vary
Stainless steel (V2A, 304):	Ca. 0.7
Copper (Cu):	Ca. 0.3
Aluminum (Al):	Ca. 0.4
Brass (Br):	Ca. 0.5

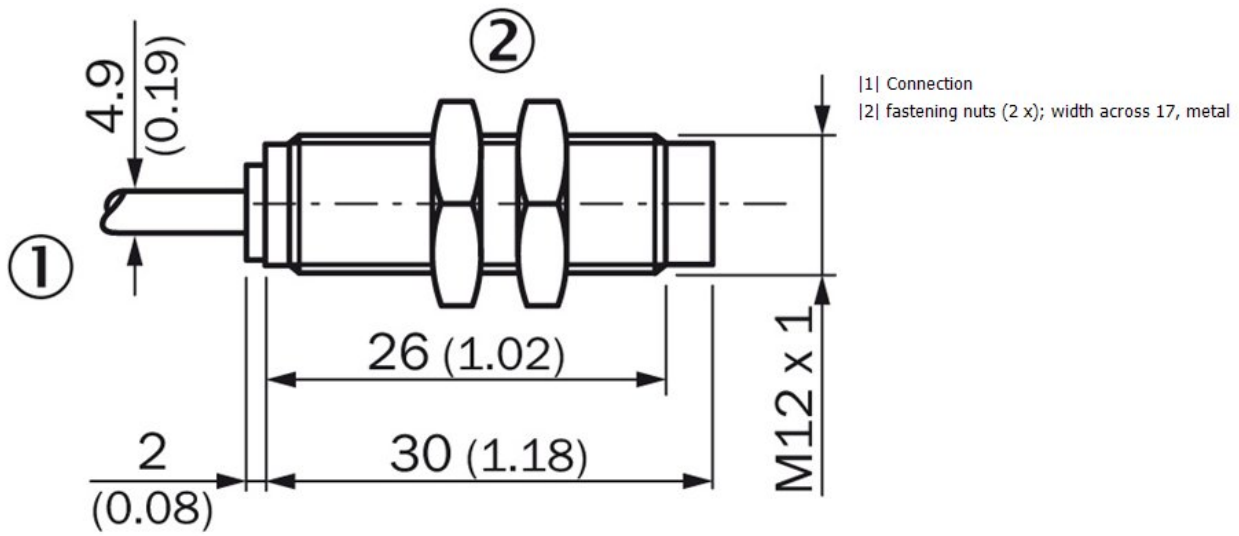
Installation note

A:	12 mm
B:	24 mm
C:	12 mm
D:	12 mm
E:	8 mm
F:	32 mm
Remark:	Associated graphic see "Installation"

Installation note

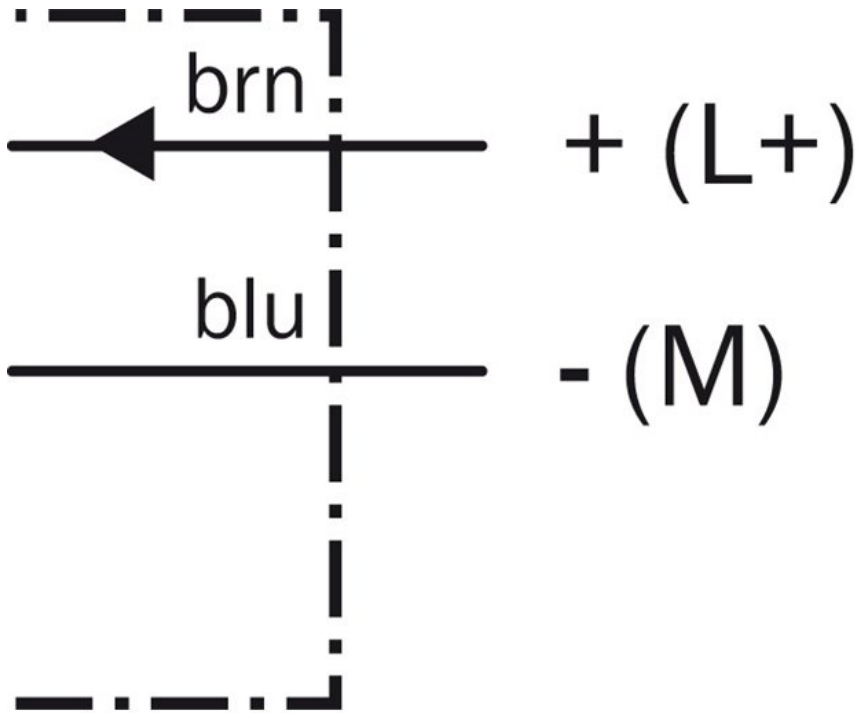


Dimensional drawing

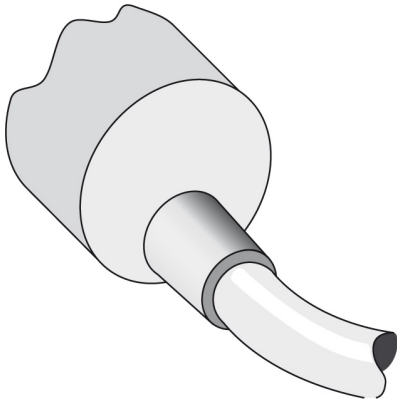


All dimensions in mm (inch)

Connection diagram



Connection type



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