



IMI12-04BPSNC0S

IMI

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
IMI12-04BPSNCOS	1093915

Other models and accessories → www.sick.com/IMI

Detailed technical data

Features

Housing	Cylindrical thread design
Thread size	M12 x 1
Diameter	Ø 12 mm
Sensing range S_n	4 mm
Safe sensing range S_a	3.24 mm
Installation type	Flush
Switching frequency	100 Hz
Connection type	Male connector M12, 4-pin
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68, IP69K ¹⁾
Special features	Sensing face made of stainless steel V4A, Resistant to cleaning agents
Special applications	Hygienic and washdown zones, Difficult application conditions

¹⁾ According to EN 60529.

Mechanics/electronics

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

¹⁾ Of V_S .

²⁾ With I max.

³⁾ Without load.

⁴⁾ Of S_r .

Time delay before availability	≤ 300 ms
Hysteresis	1 % ... 20 %
Reproducibility	≤ 2 % ⁴⁾
Temperature drift (of S_r)	≤ 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 mA
Short-circuit protection	✓
Reverse polarity protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	100 g / 5 ms / 1000 cycles; 150 g / 1 Mio cycles; 10 Hz ... 55 Hz, 1 mm / 55 Hz ... 500 Hz / 60 g
Ambient operating temperature	-25 °C ... +75 °C
Housing material	Stainless steel V4A, DIN 1.4404 / AISI 316L
Sensing face material	Stainless steel V4A, DIN 1.4404 / AISI 316L
Housing length	63.8 mm
Thread length	46.8 mm
Tightening torque, max.	≤ 32 Nm
Items supplied	Mounting nut, V4A stainless steel (2x)
Protection class	III
UL File No.	E181493

¹⁾ Of V_S.

²⁾ With I max.

³⁾ Without load.

⁴⁾ Of S_r.

Safety-related parameters

MTTF_D	1,892 years
DC_{avg}	0%

Reduction factors

Note	The values are reference values which may vary
St37 steel (Fe)	Approx. 1
Stainless steel (V2A, 304)	Approx. 0.67
Aluminum (Al)	Approx. 0.71
Copper (Cu)	Approx. 0.51
Brass (Br)	Approx. 0.8

Installation note

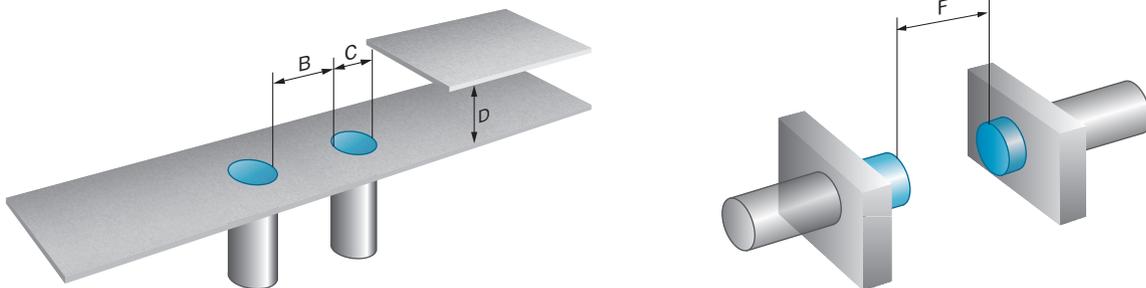
Remark	Associated graphic see "Installation"
B	12 mm
C	12 mm
D	25 mm
F	32 mm

Classifications

ECl@ss 5.0	27270101
ECl@ss 5.1.4	27270101
ECl@ss 6.0	27270101
ECl@ss 6.2	27270101
ECl@ss 7.0	27270101
ECl@ss 8.0	27270101
ECl@ss 8.1	27270101
ECl@ss 9.0	27270101
ECl@ss 10.0	27270101
ECl@ss 11.0	27270101
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0	EC002714
UNSPSC 16.0901	39122230

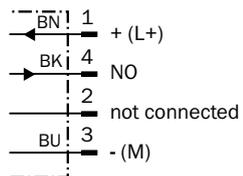
Installation note

Flush installation

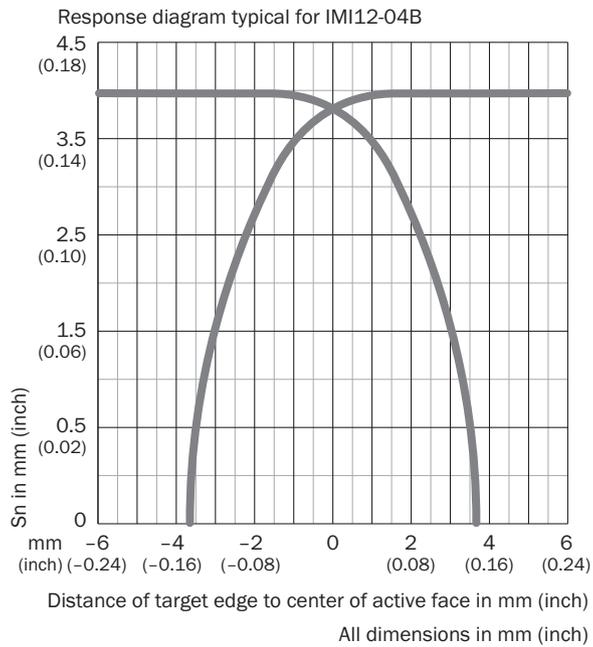


Connection diagram

Cd-007

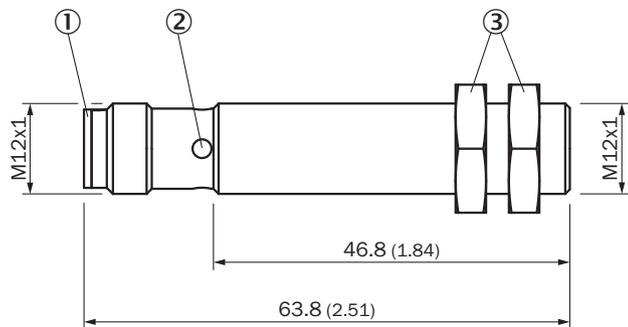


Response diagram



Dimensional drawing (Dimensions in mm (inch))

IM12 Inox, flush



- ① Connection
- ② Indication LED
- ③ Fastening nuts (2 x); width across 17, stainless steel V4A

Recommended services

Additional services → www.sick.com/IMI

	Type	Part no.
Function Block Factory		
<ul style="list-style-type: none">• Brief description: The Function Block Factory supports common programmable logic controllers (PLCs) from various manufacturers, such as Siemens, Beckhoff, Rockwell Automation and B&R. More information on the FBF can be found <a _blank">="" a>.<="" here<="" href="https://fbf.cloud.sick.com/target=" li="">	Function Block Factory	On request

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com