Product data sheet

IMI12-04BNSNU2S

IMI

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

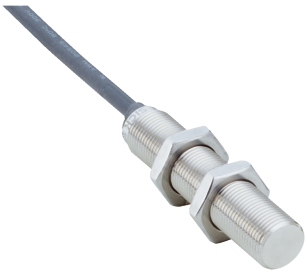


Illustration may differ

Ordering information

Type	Part no.
IMI12-04BNSNU2S	1093921

Included in delivery: BEF-MU-M12N1 (1)

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	75 Hz
Connection type	Cable, 3-wire, 2 m
Switching output	NPN
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
Items supplied	Mounting nut, V4A stainless steel (2x)

[1] According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 % [1]
Voltage drop	≤ 2 V [2]
Time delay before availability	≤ 300 ms
Hysteresis	1 % ... 20 %

[1] Of V_S.
[2] With I max.
[3] Of Sr.

Reproducibility	≤ 2 % [3]
Temperature drift (of S_r)	≤ 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 mA
No load current	≤ 10 mA
Cable material	PUR
Conductor size	0.34 mm²
Cable diameter	Ø 4.5 mm
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	58.8 mm
Thread length	54.7 mm
Tightening torque, max.	≤ 32 Nm
Protection class	III
UL File No.	E181493

[1] Of V_S.
[2] With I max.
[3] Of Sr.

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

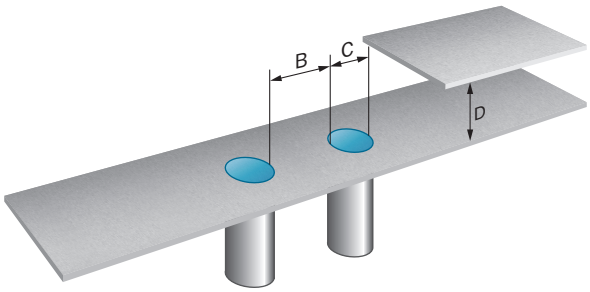
Remark	Associated graphic see "Installation"
B	12 mm
C	12 mm
D	25 mm
F	32 mm

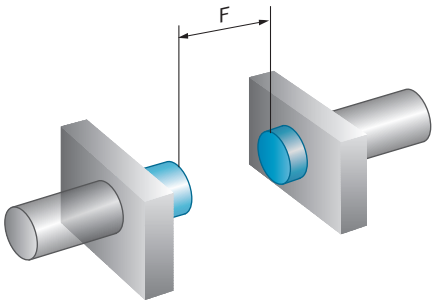
Classifications

ECLASS 5.0	27270101
ECLASS 5.1.4	27270101
ECLASS 6.0	27270101
ECLASS 6.2	27270101
ECLASS 7.0	27270101
ECLASS 8.0	27270101
ECLASS 8.1	27270101
ECLASS 9.0	27270101
ECLASS 10.0	27270101
ECLASS 11.0	27270101
ECLASS 12.0	27274001
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0	EC002714
ETIM 8.0	EC002714
UNSPSC 16.0901	39122230

Installation note

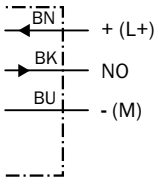
Flush installation



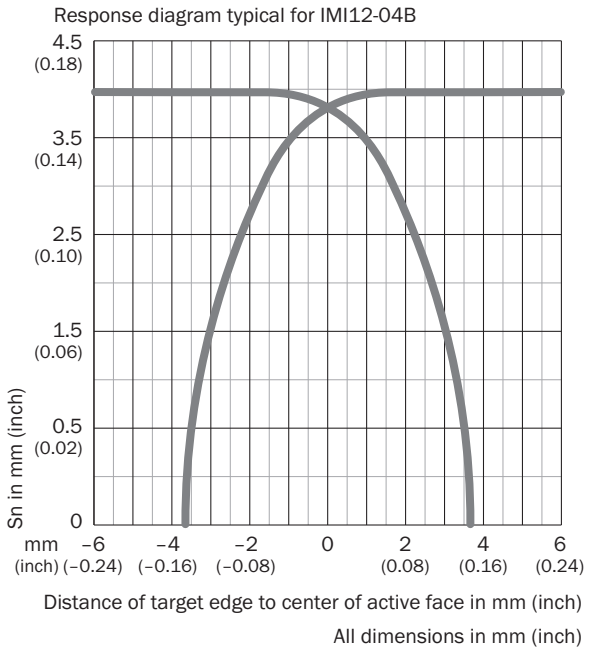


Connection diagram

Cd-001

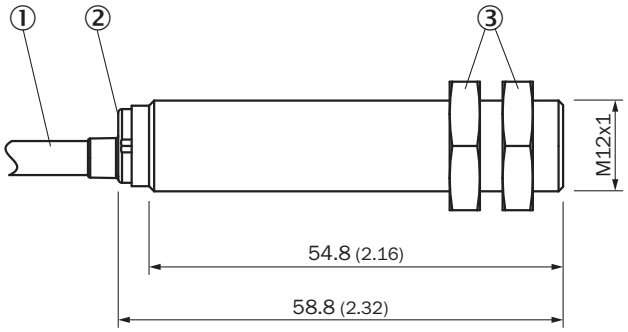


Response diagram



Dimensional drawing (Dimensions in mm (inch))

IM12 Inox, flush



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

Recommended accessories

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

	Brief description	Type	Part no.
Plug connectors and cables			
	• **Connection type head A:** Female connector, M12, 4-pin, straight • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Application:** Hygienic and washdown zones	DOS-1204-GN	6028357
	• **Connection type head A:** Female connector, M12, 4-pin, angled • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Application:** Hygienic and washdown zones	DOS-1204-WN	6028358
	• **Connection type head A:** Male connector, M12, 4-pin, straight • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Application:** Hygienic and washdown zones	STE-1204-GN	6028359
	• **Connection type head A:** Male connector, M12, 4-pin, straight • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm² • **Note:** For 2 cable connections • **Application:** Hygienic and washdown zones	STE-1204-TN	6028360

SICK AT A GLANCE

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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.”

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