



IMI12-04BPSVU2S

IMI

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
IMI12-04BPSVU2S	1093893

Included in delivery: BEF-MU-M12N (2)

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

Illustration may differ



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	Cable, 3-wire, 2 m
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68, IP69K ¹⁾
Special features	Sensing face made of stainless steel V2A, Resistant against coolant lubricants
Special applications	Zones with coolants and lubricants, 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⁾
Time delay before availability	≤ 300 ms

¹⁾ Of V_S .

²⁾ With I max.

³⁾ Without load.

⁴⁾ Of S_r .

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
Cable material	PUR
Conductor size	0.34 mm ²
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 V2A, DIN 1.4305 / AISI 303
Sensing face material	Stainless steel V2A, DIN 1.4305 / AISI 303
Housing length	58.8 mm
Thread length	54.7 mm
Tightening torque, max.	≤ 32 Nm
Items supplied	Mounting nut, V2A stainless steel, with locking teeth (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

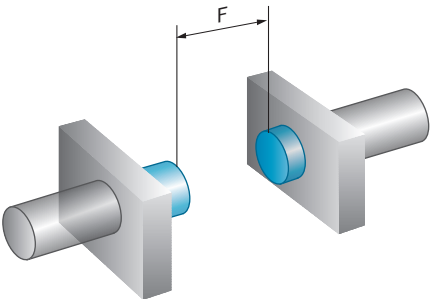
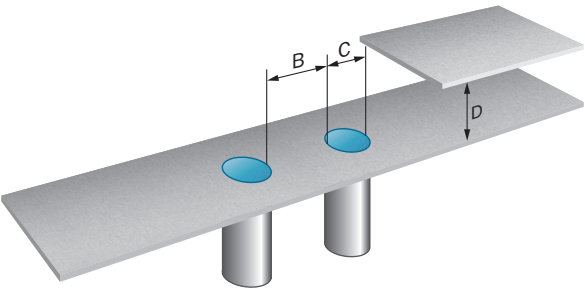
F	32 mm
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Classifications

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

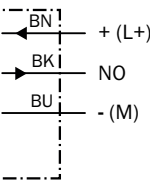
Installation note

Flush installation

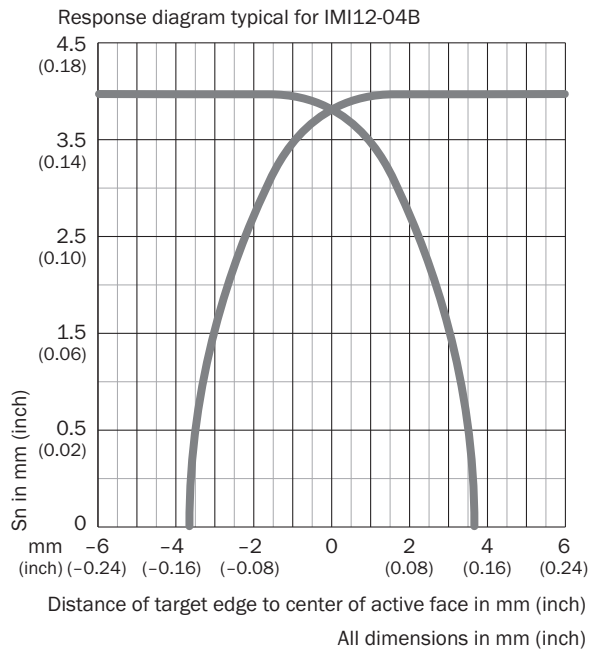


Connection diagram

Cd-001

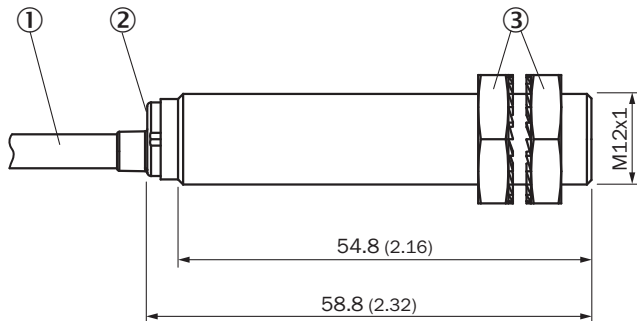


Response diagram



Dimensional drawing (Dimensions in mm (inch))

IM12 Inox, flush



- ① Connection
- ② Indication LED
- ③ Fastening nuts (2 x); width across 17, stainless steel V2A

Recommended accessories

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

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight Head B: - Cable: unshielded	DOS-1204-GN	6028357

	Brief description	Type	Part no.
	Head A: female connector, M12, 4-pin, angled Head B: - Cable: unshielded	DOS-1204-WN	6028358
	Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded	STE-1204-GN	6028359
	Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded For 2 cable connections	STE-1204-TN	6028360

Recommended services

Additional services → www.sick.com/IMI

	Type	Part no.
Function Block Factory		
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 here.	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