

# IMB12-08NPOVU2K

**INDUCTIVE PROXIMITY SENSORS** 



INDUCTIVE PROXIMITY SENSORS



#### Ordering information

Туре	Part no.
IMB12-08NPOVU2K	1072759

Included in delivery: BEF-MU-M12N (1)

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

#### Illustration may differ



# Detailed technical data

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Housing	Cylindrical thread design
Housing	Short-body
Thread size	M12 x 1
Diameter	Ø 12 mm
Sensing range S <sub>n</sub>	8 mm
Safe sensing range S <sub>a</sub>	6.48 mm
Installation type	Non-flush
Switching frequency	2,000 Hz
Connection type	Cable, 3-wire, 2 m
Switching output	PNP
Output function	NC
Electrical wiring	DC 3-wire
Enclosure rating	IP68 <sup>1)</sup> IP69K <sup>2)</sup>
Special features	Resistant against coolant lubricants, Visual adjustment indicator, Temperature resistance
Special applications	Zones with coolants and lubricants, Mobile machines, Difficult application conditions
Items supplied	Mounting nut, V2A stainless steel, with locking teeth (2x)

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

<sup>2)</sup> According to ISO 20653:2013-03.

#### Mechanics/electronics

Supply voltage	10 V DC 30 V DC
Ripple	≤ 10 %

<sup>1)</sup> At I<sub>a</sub> max.

<sup>2)</sup> Supply voltage Ub and constant ambient temperature Ta.

<sup>3)</sup> Of Sr.

 $^{\rm 4)}$  When using the non-toothed side of the nut.

 $^{5)}\,\mathrm{Valid}$  if toothed side of nut is used.

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Voltage drop	$\leq 2 V^{(1)}$
Hysteresis	3 % 20 %
Reproducibility	$\leq 2 \%^{(2)(3)}$
Temperature drift (of S <sub>r</sub> )	± 10 %
EMC	According to EN 60947-5-2
Continuous current I <sub>a</sub>	≤ 200 mA
No load current	≤ 10 mA
Cable material	PUR
Conductor size	0.34 mm <sup>2</sup>
Cable diameter	Ø 4.5 mm
Short-circuit protection	1
Reverse polarity protection	1
Power-up pulse protection	4
Shock and vibration resistance	100 g / 2 ms / 500 cycles; 150 g / 1 Mio cycles; 10 Hz 55 Hz / 1 mm; 55 Hz 500 Hz / 60 g
Ambient operating temperature	-40 °C +100 °C
Housing material	Stainless steel V2A, DIN 1.4305 / AISI 303
Sensing face material	Plastic, LCP
Housing length	34 mm
	05
Thread length	25 mm
Thread length Tightening torque, max.	25 mm Typ. 20 Nm <sup>4)</sup> Typ. 32 Nm <sup>5)</sup>
-	Typ. 20 Nm <sup>4)</sup>

<sup>1)</sup> At I<sub>a</sub> max.

<sup>2)</sup> Supply voltage Ub and constant ambient temperature Ta.

<sup>3)</sup> Of Sr.

<sup>4)</sup> When using the non-toothed side of the nut.

<sup>5)</sup> Valid if toothed side of nut is used.

#### Safety-related parameters

MTTFD	1,971 years
DC <sub>avg</sub>	0 %

#### Reduction factors

Note	The values are reference values which may vary
St37 steel (Fe)	1
Stainless steel (V2A, 304)	Approx. 0.67
Aluminum (Al)	Approx. 0.42
Copper (Cu)	Approx. 0.35
Brass (Br)	Approx. 0.42
Installation note	
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Remark	Associated graphic see "Installation"
A	12 mm

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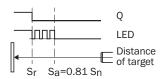
В	24 mm
5	
с	12 mm
D	24 mm
E	16 mm
F	64 mm

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	

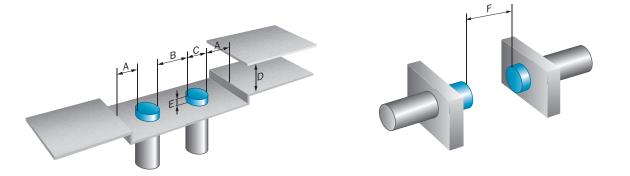
#### Adjustments

Installation aid



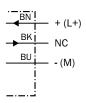
#### Installation note

Non-flush installation



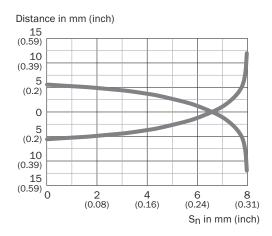
#### **Connection diagram**

Cd-003



#### Response diagram

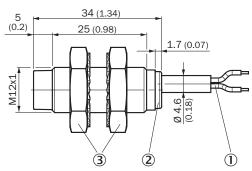
#### Response diagram



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#### Dimensional drawing (Dimensions in mm (inch))

IMB12 Short-body housing, cable, non-flush



① Connection

② Display LED

③ Fastening nuts (2 x); width across 17, stainless steel V2A

#### **Recommended accessories**

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

	Brief description	Туре	Part no.		
Universal bar	Universal bar clamp systems				
6	Plate N05N for universal clamp bracket, M12, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp (5322627), mounting hardware	BEF-KHS-N05N	2051621		
Mounting bra	ckets and plates				
	Mounting plate for M12 sensors, stainless steel, without mounting hardware	BEF-WG-M12N	5320950		
40	Mounting bracket for M12 housing, stainless steel, without mounting hardware	BEF-WN-M12N	5320949		
Plug connecto	ors and cables				
	Head A: female connector, M12, 4-pin, straight Cable: unshielded	DOS-1204-GN	6028357		
	Head A: female connector, M12, 4-pin, angled Cable: unshielded	DOS-1204-WN	6028358		
	Head A: male connector, M12, 4-pin, straight Cable: unshielded	STE-1204-GN	6028359		
	Head A: male connector, M12, 4-pin, straight Cable: unshielded For 2 cable connections	STE-1204-TN	6028360		

# 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."

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Online data sheet

