chanhvinh.com

Product data sheet



IMB18-12NN0VU2S

IMB

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

chanhvinh.com

IMB18-12NN0VU2S | IMB

INDUCTIVE PROXIMITY SENSORS



Illustration may differ

Ordering information

Type	Part no.
IMB18-12NN0VU2S	1072820

Included in delivery: BEF-MU-M18N (1)

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

Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Standard
Thread size	M18 x 1
Diameter	Ø 18 mm
Sensing range S_n	12 mm
Safe sensing range S_a	9.72 mm
Installation type	Non-flush
Switching frequency	1,000 Hz
Connection type	Cable, 3-wire, 2 m
Switching output	NPN
Output function	NC
Electrical wiring	DC 3-wire
Enclosure rating	IP68 [1] IP69K [2]
Special features	Resistant against coolant lubricants, Visual adjustment indicator, Temperature resistance
Special applications	Zones with coolants and lubricants, Mobile machines, Difficult application conditions

[1] According to EN 60529.
[2] According to ISO 20653:2013-03.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 2 V [1]
Hysteresis	3 % ... 20 %
Reproducibility	≤ 2 % [2] [3]

[1] At I_a max.
[2] Ub and Ta constant.
[3] Of Sr.
[4] When using the non-toothed side of the nut.
[5] Valid if toothed side of nut is used.

chanhvinh.com

Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 mA
Cable material	PUR
Short-circuit protection	✓
Reverse polarity protection	✓
Power-up pulse protection	✓
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	50 mm
Thread length	38 mm
Tightening torque, max.	Typ. 60 Nm [4] Typ. 90 Nm [5]
Items supplied	Mounting nut, V2A stainless steel, with locking teeth (2x)
Protection class	III
UL File No.	E181493

[1] At I_a max.
[2] Ub and Ta constant.
[3] Of Sr.
[4] When using the non-toothed side of the nut.
[5] Valid if toothed side of nut is used.

Safety-related parameters

$MTTF_D$	1,971 years
DC_{avg}	0 %

Reduction factors

Note	The values are reference values which may vary
St37 steel (Fe)	1
Stainless steel (V2A, 304)	Approx. 0.7
Aluminum (Al)	Approx. 0.43
Copper (Cu)	Approx. 0.37
Brass (Br)	Approx. 0.43

Installation note

Remark	Associated graphic see "Installation"
A	18 mm
B	45 mm
C	18 mm
D	36 mm
E	12 mm
F	96 mm

IMB18-12NN0VU2S | IMB

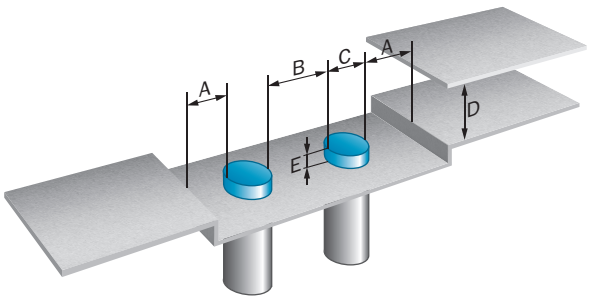
INDUCTIVE PROXIMITY SENSORS

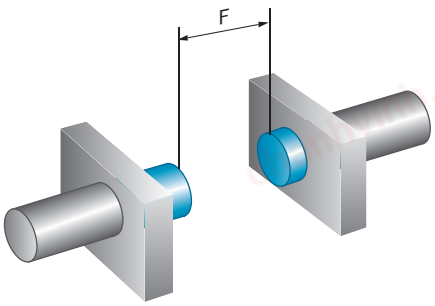
Classifications

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
ETIM 8.0	EC002714
UNSPSC 16.0901	39122230

Installation note

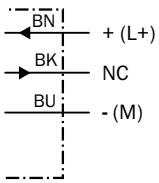
Non-flush installation





Connection diagram

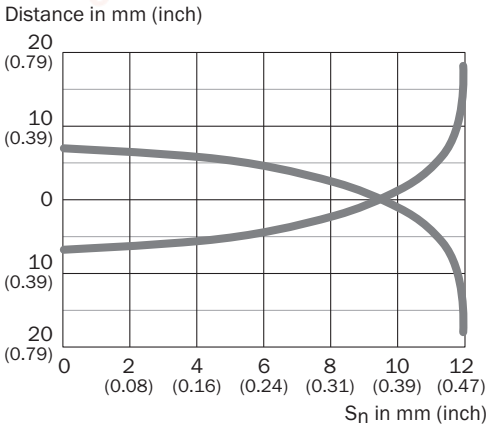
Cd-003



chanhvinh.com

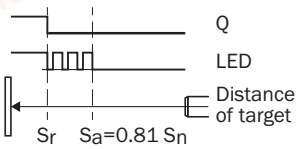
Characteristic curve

Response diagram



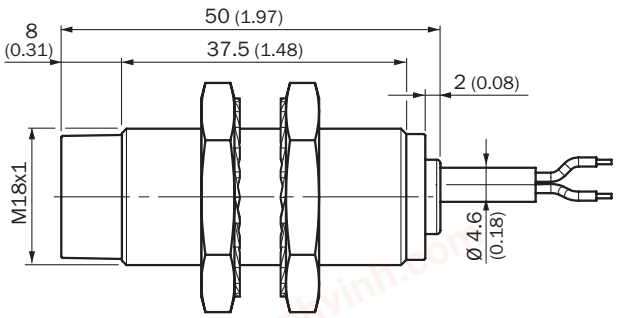
Adjustments

Installation aid



Dimensional drawing (Dimensions in mm (inch))

IMB18 Standard, cable, non-flush



chanhvinh.com

Recommended accessories

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N06N for universal clamp bracket, M18, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp (5322627), mounting hardware	BEF-KHS-N06N	2051622
Mounting brackets and plates			
	Mounting plate for M18 sensors, stainless steel, without mounting hardware	BEF-WG-M18N	5320948
	Mounting bracket for M18 sensors, stainless steel, without mounting hardware	BEF-WN-M18N	5320947
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight Head B: - Cable: unshielded	DOS-1204-GN	6028357
	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

chanhvinh.com

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

SICK
Sensor Intelligence.