Online data sheet



IMB30-20NPSVU2K

IMB

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
IMB30-20NPSVU2K	1072859

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

Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Short-body
Thread size	M30 1.5
Diameter	Ø 30 mm
Sensing range S_n	20 mm
Safe sensing range S_a	16.2 mm
Installation type	Non-flush
Switching frequency	500 Hz
Connection type	Cable, 3-wire, 2 m
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68 [1] IP69K [2]
Special features	Resistant against coolant lubricants, Optical adjustment indicatorCapable of communication via IO-Link 1.0

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

Communication interface

Communication interface	IO-Link V1.0
Mode	COM2 (38,4 kBaud)
Process data length	1 Byte
Process data structure	Bit 0 = Sr reached Bit 1 = Sa reached

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 2 V [1]
Current consumption	≤ 10 mA [2]
Hysteresis	3 % ... 20 %
Reproducibility	≤ 2 % [3] [4]
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 (1.4305)
Sensing face material	Plastic, LCP
Housing length	40 mm
Thread length	24 mm
Tightening torque, max.	Typ. 100 Nm [5]
Protection class	II [6]
UL File No.	E181493

[1] At I_a max.
[2] Without load.
[3] Ub and Ta constant.
[4] Of Sr.
[5] Valid if toothed side of nut is used.
[6] Reference voltage DC 50 V.

Reduction factors

Note	The values are reference values which may vary
Stainless steel (V2A, 304)	Approx. 0.78
Aluminum (Al)	Approx. 0.44
Copper (Cu)	Approx. 0.36
Brass (Br)	Approx. 0.46

Installation note

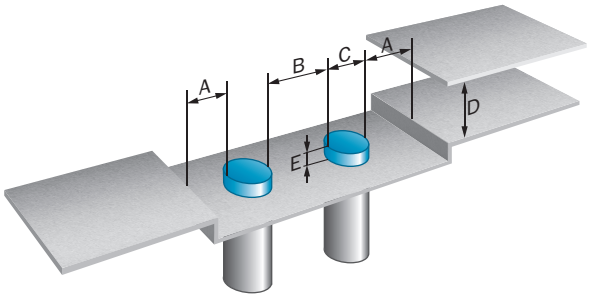
Remark	Associated graphic see "Installation"
A	20 mm
B	62 mm
C	30 mm
D	60 mm

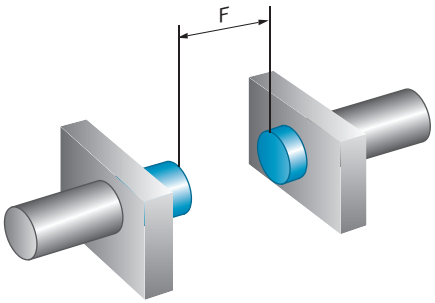
E	20 mm
F	160 mm

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
ETIM 5.0	EC002714
ETIM 6.0	EC002714
UNSPSC 16.0901	39122230

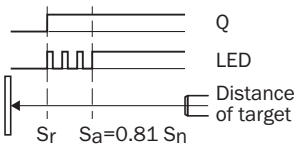
Installation note





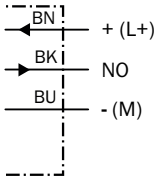
Adjustments possible

Normally open



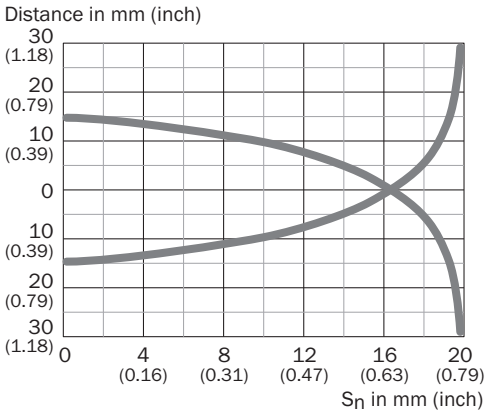
Connection diagram

cd-001



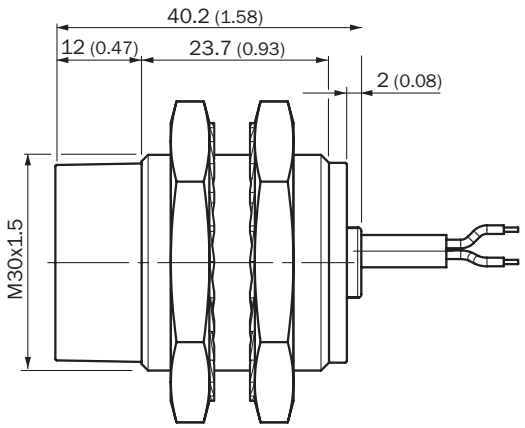
Characteristic curve

Non-flush installation



Dimensional drawing (Dimensions in mm (inch))

IMB30 Short-body housing, cable, non-flush



Recommended accessories

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N11N for universal clamp bracket, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp (5322626), mounting hardware	BEF-KHS-N11N	2071081
Mounting brackets and plates			
	Mounting plate for M30 sensors, steel, zinc coated, without mounting hardware	BEF-WG-M30	5321871
	Mounting bracket for M30 sensors, steel, zinc coated, without mounting hardware	BEF-WN-M30	5308445
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

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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