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DATA SHEET

# IHM06-03BPSVT0G

IMM  
Inductive proximity sensors

**SICK** Sensor Intelligence

## INDUCTIVE PROXIMITY SENSORS

## IHM06-03BPSVT0G

## ORDERING INFORMATION

Type	part no.
IHM06-03BPSVT0G	<a href="#">1103982</a>

Further device versions and accessories at [www.sick.com/IMM](http://www.sick.com/IMM)



Illustration may differ



## DETAILED TECHNICAL DATA

## FEATURES

Housing	Cylindrical
Housing	Extremely short model
Diameter	Ø 6.5 mm
Sensing range $S_n$	3 mm
Safe sensing range $S_a$	2.43 mm
Installation type	Flush
Switching frequency	1,500 Hz
Connection type	Connector M8, 3-pin
Switching output	PNP
Switching output detail	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 <sup>1)</sup>
Special features	Visual adjustment indicator, triple sensing range

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

**MECHANICS/ELECTRONICS**

Supply voltage	10 V DC ... 30 V DC
Ripple	$\leq 20\%$ <sup>1)</sup>
Voltage drop	$\leq 2\text{ V}$ <sup>2)</sup>
Time delay before availability	$\leq 50\text{ ms}$
Hysteresis	1% ... 10%
Reproducibility	$\leq 2\%$ <sup>3)</sup>
Temperature drift (of S <sub>1</sub> )	$\leq 10\%$
EMC	EN 60947-5-2
Continuous current I <sub>a</sub>	$\leq 200\text{ mA}$
Short-circuit protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	-25 °C ... +70 °C
Housing material	Stainless steel V2A, DIN 1.4305 / AISI 303
Sensing face material	Plastic, LCP
Housing length	29 mm
UL File No.	NRKH.E348498

<sup>1)</sup> Of V<sub>s</sub>.<sup>2)</sup> With I<sub>a</sub> = 200 mA.<sup>3)</sup> Supply voltage U<sub>s</sub> and constant ambient temperature T<sub>a</sub>.**SAFETY-RELATED PARAMETERS**

MTTF <sub>D</sub>	1,330 years
DC <sub>avg</sub>	0%

**COMMUNICATION INTERFACE**

Communication interface	IO-Link V1.1
Communication Interface detail	COM2 (38,4 kBaud)
Cycle time	10.4 ms
Process data length	1 Byte
Process data structure	Bit 0 = Sr reached Bit 1 = Sa reached

**REDUCTION FACTORS**

Note	The values are reference values which may vary
St37 steel (Fe)	1
Stainless steel (V2A, 304)	Approx. 0.75
Aluminum (Al)	Approx. 0.5
Copper (Cu)	Approx. 0.43
Brass (Br)	Approx. 0.54

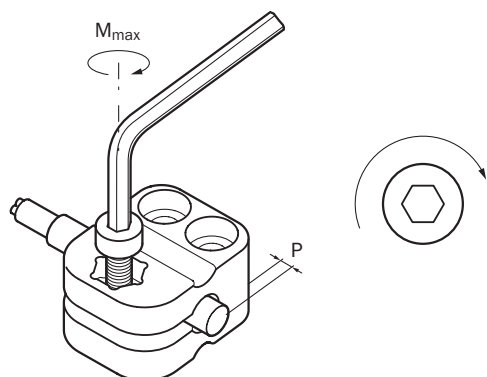
**INSTALLATION NOTE**

Remark	Associated graphic see "Installation"
B	10 mm
C	6.5 mm

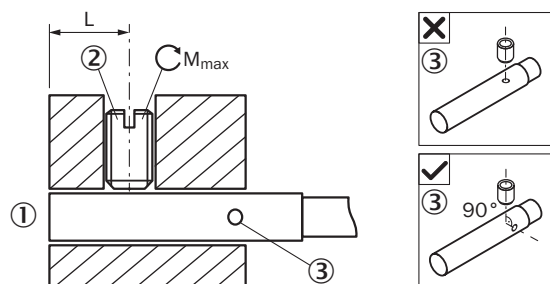
D	9 mm
F	24 mm

**CERTIFICATES**

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
IO-Link certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

**INSTALLATION NOTE MOUNTING USING BEF-KH-M06 BRACKET**


Sensor type	Mounting adapter	Overrun (P)	Max. tightening torque ( $M_{max}$ )
IHM06-1B5***** IHM06-02B***** IHM06-03B*****	BEF-KH-M06, part no. 2101067	$\geq 0$ mm	$\leq 0.6$ Nm

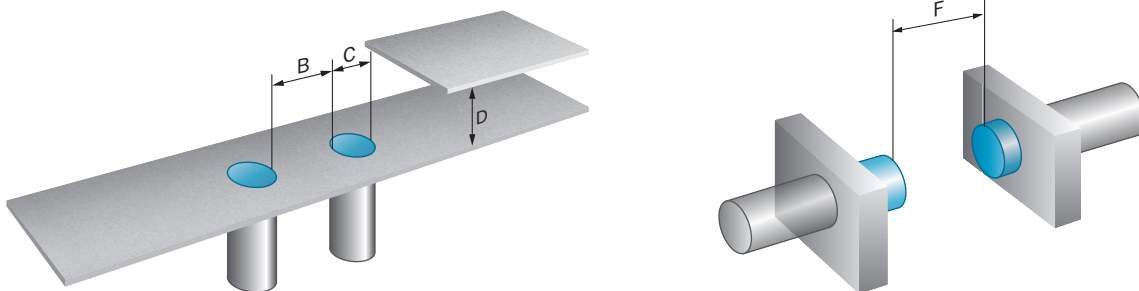
**INSTALLATION NOTE FIXING WITH SETSCREW**


- ① Sensing face
- ② Recommended setscrew: M3, flat point
- ③ Display LED

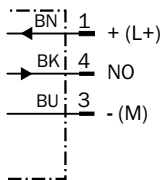
Sensor type	Mounting area (L)	Max. tightening torque ( $M_{max}$ )
IHM06-*****G	6 mm ... 11 mm	$\leq 0.4$ Nm
IHM06-*****TOG	6 mm ... 21 mm	$\leq 0.4$ Nm
IHM06-*****K	6 mm ... 21 mm	$\leq 0.4$ Nm

Sensor type	Mounting area (L)	Max. tightening torque (M <sub>max</sub> )
IHM06-*****TOK	6 mm ... 32 mm	≤ 0.4 Nm
IHM06-*****S	6 mm ... 32 mm	≤ 0.4 Nm
IHM06-*****TOS	6 mm ... 42 mm	≤ 0.4 Nm

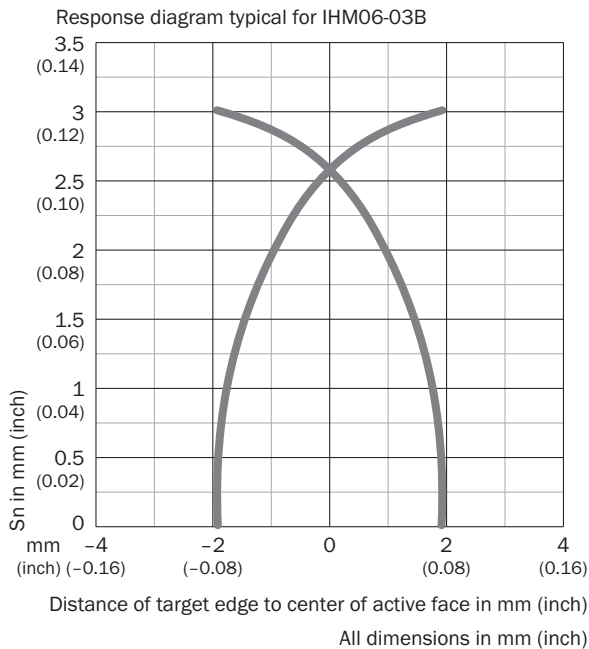
**INSTALLATION NOTE FLUSH INSTALLATION**



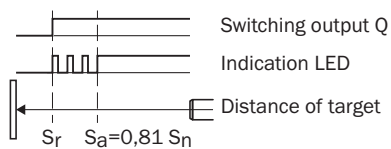
**CONNECTION DIAGRAM CD-002**



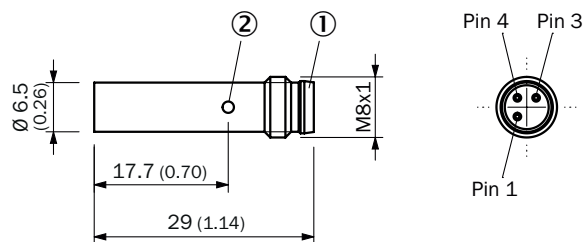
**RESPONSE DIAGRAM**



**FUNCTIONAL PRINCIPLE INSTALLATION AID**



**DIMENSIONAL DRAWING IHM06, EXTREMELY SHORT VARIANT, FLUSH, MALE CONNECTOR**



Dimensions in mm (inch)

- ① Connection
- ② function indicator

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at [www.sick.com/1103982](http://www.sick.com/1103982)



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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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