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DATA SHEET

**IME12-04BDSZY2K**

IME  
Inductive proximity sensors

**SICK** Sensor Intelligence

## INDUCTIVE PROXIMITY SENSORS

## IME12-04BDSZY2K

## ORDERING INFORMATION

Type	part no.
IME12-04BDSZY2K	1072274

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



Illustration may differ



## DETAILED TECHNICAL DATA

## FEATURES

Housing	Metric
Housing	Short-body
Thread size	M12 x 1
Diameter	Ø 12 mm
Sensing range $S_n$	4 mm
Safe sensing range $S_s$	3.24 mm
Installation type	Flush
Switching frequency	2,000 Hz
Connection type	Cable, 2-wire, 2 m, Oil-resistant
Output function	NO
Electrical wiring	DC 2-wire
Enclosure rating	IP67 <sup>1)</sup>
Items supplied	Mounting nut, brass, nickel-plated (2x)

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

**MECHANICS/ELECTRONICS**

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 4 V <sup>1)</sup> ≤ 4.5 V <sup>2)</sup>
Time delay before availability	≤ 100 ms
Hysteresis	5 % ... 15 %
Reproducibility	≤ 2 % <sup>3)</sup> <sup>4)</sup>
Temperature drift (of S <sub>i</sub> )	± 10 %
EMC	According to EN 60947-5-2
Continuous current I <sub>a</sub>	≤ 100 mA
Off-state current	≤ 0.8 mA
Minimum load current	≥ 3 mA
Cable material	PVC
Conductor size	0.25 mm <sup>2</sup>
Cable diameter	Ø 3.9 mm
Short-circuit protection	✓
Power-up pulse	≤ 5 ms
Shock and vibration resistance	30 g, 11 ms/10 Hz ... 55 Hz, 1 mm
Ambient operating temperature	-25 °C ... +75 °C
Housing material	Brass, nickel-plated
Sensing face material	Plastic, PA 66
Housing length	44 mm
Thread length	29 mm
Tightening torque, max.	≤ 12 Nm
UL File No.	NRKH.E181493

<sup>1)</sup> At I<sub>a</sub> = 30 mA.

<sup>2)</sup> At I<sub>a</sub> max.

<sup>3)</sup> Supply voltage U<sub>s</sub> and constant ambient temperature T<sub>a</sub>.

<sup>4)</sup> Of S<sub>r</sub>.

**SAFETY-RELATED PARAMETERS**

MTTF <sub>D</sub>	1,103 years
DC <sub>avg</sub>	0 %
T <sub>M</sub> (mission time)	20 years

**REDUCTION FACTORS**

Note	The values are reference values which may vary
St37 steel (Fe)	1
Stainless steel (V2A, 304)	Approx. 0.8
Aluminum (Al)	Approx. 0.45
Copper (Cu)	Approx. 0.4
Brass (Br)	Approx. 0.4

**INSTALLATION NOTE**

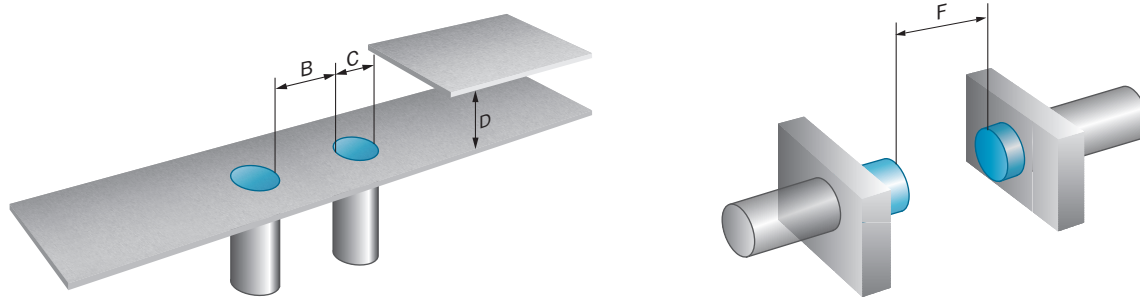
Remark	Associated graphic see "Installation"
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B	24 mm
C	12 mm
D	12 mm
F	32 mm

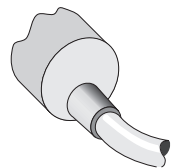
**CERTIFICATES**

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓

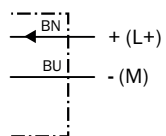
**INSTALLATION NOTE FLUSH INSTALLATION**



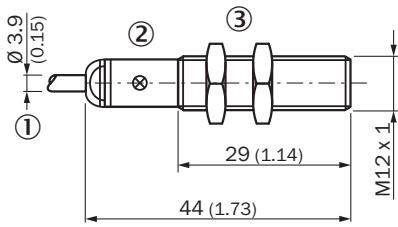
**CONNECTION TYPE**



**CONNECTION DIAGRAM CD-012**



## DIMENSIONAL DRAWING IME12 SHORT VARIANT, CABLE, FLUSH



Dimensions in mm (inch)

- ① Connection
- ② Display LED
- ③ Fastening nuts (2x); width across 17, metal

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/1072274](http://www.sick.com/1072274)



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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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