

# IME12-04BDSZQ9S

**INDUCTIVE PROXIMITY SENSORS** 



#### Ordering information

Туре	part no.
IME12-04BDSZQ9S	1068718

Included in delivery: BEF-MU-M12 (1)

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

Illustration may differ



#### Detailed technical data

#### **Features**

Housing	Metric
Housing	Standard design
Thread size	M12 x 1
Diameter	Ø 12 mm
Sensing range S <sub>n</sub>	4 mm
Safe sensing range S <sub>a</sub>	3.24 mm
Installation type	Flush
Switching frequency	2,000 Hz
Connection type	Cable with M12 male connector, 4-pin, 0.3 m
Output function	NO
Electrical wiring	DC 2-wire
Enclosure rating	IP67 <sup>1)</sup>
Items supplied	Mounting nut, brass, nickel-plated (2x)

<sup>&</sup>lt;sup>1)</sup> According to EN 60529.

#### Mechanics/electronics

Supply voltage	10 V DC 30 V DC
Ripple	≤ 10 %
Voltage drop	$\leq 4 V^{(1)}$ $\leq 4.5 V^{(2)}$

 $<sup>^{1)}</sup>$  At I<sub>a</sub> = 30 mA.

<sup>2)</sup> At L may

 $<sup>^{\</sup>rm 3)}$  Supply voltage  $U_B$  and constant ambient temperature Ta.

<sup>&</sup>lt;sup>4)</sup> Of Sr.

Time delay before availability	≤ 100 ms
Hysteresis	5 % 15 %
Reproducibility	≤ 2 % <sup>3)</sup> 4)
Temperature drift (of S <sub>r</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
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	63 mm
Thread length	48 mm
Tightening torque, max.	≤ 12 Nm
UL File No.	NRKH.E181493

 $<sup>^{1)}</sup>$  At I<sub>a</sub> = 30 mA.

### Safety-related parameters

MTTF <sub>D</sub>	1,103 years
<b>DC</b> <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 (AI)	Approx. 0.45	
Copper (Cu)	Approx. 0.4	
Brass (Br)	Approx. 0.4	

#### Installation note

Remark	Associated graphic see "Installation"
В	24 mm
c	12 mm
D	12 mm

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

 $<sup>^{\</sup>rm 3)}$  Supply voltage  $\rm U_B$  and constant ambient temperature Ta.

<sup>&</sup>lt;sup>4)</sup> Of Sr.

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F	32 mm
Certificates	
EU declaration of conformity	✓
UK declaration of conformity	1
ACMA declaration of conformity	1
Moroccan declaration of conformity	<b>√</b>
China RoHS	<b>✓</b>
cULus certificate	<b>√</b>
Classifications	
ECLASS 5.0	27270101
ECLASS 5.1.4	27270101
ECLASS 6.0	27270101
ECLASS 6.2	27270101
ECLASS 7.0	27270101

27270101

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27274001

EC002714

EC002714

EC002714

EC002714

39122230

#### Installation note Flush installation

ECLASS 8.0

ECLASS 8.1

ECLASS 9.0

ECLASS 10.0

**ECLASS 11.0** 

ECLASS 12.0

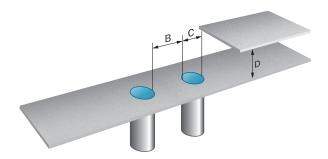
**ETIM 5.0** 

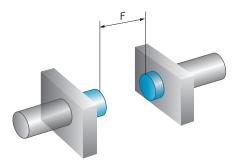
**ETIM 6.0** 

ETIM 7.0

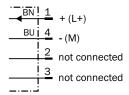
**ETIM 8.0** 

UNSPSC 16.0901

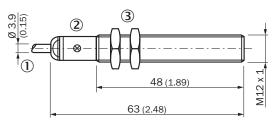




#### Connection diagram Cd-014



### Dimensional drawing IME12 standard, cable with male connector, flush



Dimensions in mm (inch)

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

#### Recommended accessories

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

	Brief description	Туре	part no.
Mounting syst	Mounting systems		
	<ul> <li>Description: Clamping block for round sensors M12, with fixed stop</li> <li>Material: Plastic</li> <li>Details: Plastic (PA12), glass-fiber reinforced</li> <li>Items supplied: Mounting hardware included</li> </ul>	BEF-KHF-M12	2051480
	<ul> <li>Description: Mounting plate for M12 sensors</li> <li>Material: Steel</li> <li>Details: Steel, zinc coated</li> <li>Items supplied: Without mounting hardware</li> </ul>	BEF-WG-M12	5321869
40	Description: Mounting bracket for M12 sensors     Material: Steel     Details: Steel, zinc coated     Items supplied: Without mounting hardware	BEF-WN-M12	5308447
	<ul> <li>Description: Clamping block for round sensors M12, without fixed stop</li> <li>Material: Plastic</li> <li>Details: Plastic (PA12), glass-fiber reinforced</li> <li>Items supplied: Mounting hardware included</li> </ul>	BEF-KH-M12	2051479

## 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

