

**INDUCTIVE PROXIMITY SENSORS** 



## IME12-08NPSZW6K | IME

INDUCTIVE PROXIMITY SENSORS



### **Ordering information**

Туре	Part no.
IME12-08NPSZW6K	1044861

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

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

Illustration may differ



### Detailed technical data

### Features

Housing	Cylindrical thread design
Housing	Short-body
Thread size	M12 x 1
Diameter	Ø 12 mm
Sensing range S <sub>n</sub>	8 mm
Safe sensing range S <sub>a</sub>	6.48 mm
Installation type	Non-flush
Switching frequency	2,000 Hz
Connection type	Cable, 3-wire, 10 m
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-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	$\leq 2 V^{(1)}$
Time delay before availability	≤ 100 ms

 $^{1)}$  At I<sub>a</sub> max.

 $^{\rm 2)}$  Supply voltage  ${\rm U}_{\rm B}$  and constant ambient temperature Ta.

<sup>3)</sup> Of Sr.

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Hysteresis5%15%Reproducibility\$2% <sup>2,3</sup> Temperature drift (of S)\$10%EMCcoording to EN 60947-5-2Continuous current Ia\$200 mAA load current\$10 mACable material\$200 mAConductor size\$200 mACable diameter\$250 ma^2Short-circuit protection\$3.9 mmPower-up pulse protection\$1Power-up pulse protection\$200 mAAbilent operating temperature\$200 mAAbilent operating temperature\$2.0 mmAbilent operating temperature\$2.0 mmHousing face material\$2.0 mmHousing face material\$2.0 mmHousing face material\$2.0 mmHousing face material\$2.0 mmTende length\$2.0 mm <th></th> <th></th>		
Temperature drift (of S,)±10%EMCAccording to EN 60947-5-2Continuous current Ia≤200 mANo load current≤10 mACable materialPVCConductor size0.25 mm²Cable diameterØ.3.9 mmShort-circuit protection✓Power-up pulse protection✓Shock and vibration resistanceØ.g. 11 ms/10 Hz 55 Hz, 1 mmAmbient operating temperatureJestic, PA 66Housing length4 mmTimead length212 NmTimead length212 Nm	Hysteresis	5 % 15 %
EMCAccording to EN 60947-5-2Continuous current Ia200 mANo load current410 mAColuctor size020 maConductor size030 mmCable diametera303 mmShort-circuit protection4Pover-up pulse protection03 s1 ms/10 Hz55 Hz, 1 mmPotent size size size size size size size size	Reproducibility	$\leq 2 \%^{2) 3}$
Continuous current IsS 200 mANo load current\$ 10 mACable materialPVCConductor size0.25 mm²Cable diameterØ 3.9 mmShort-circuit protection/Pover-up pulse protection/Power-up pulse protection30 g. 11 ms/10 Hz 55 Hz, 1 mmAmbient operating temperature-25 °C +75 °CHousing materialPlatic, PA 66Fousing face material44 mmThread length24 mmTightening torque, max.51 21 Nm	Temperature drift (of S <sub>r</sub> )	± 10 %
No load current <interformed and="" secon<="" second="" th="" the=""><th>EMC</th><th>According to EN 60947-5-2</th></interformed>	EMC	According to EN 60947-5-2
Cable materialP/CConductor size0.25 mm²Cable diameter0.39 mmShort-circuit protection✓Reverse polarity protection✓Power-up pulse protection✓Shock and vibration resistance03 (1 ms/10 Hz 55 Hz, 1 mmAmbient operating temperature-25 °C +75 °CHousing naterialPostic, PA 66Housing length4 mmThead length24 mmTightening torque, max.12 Nm	Continuous current I <sub>a</sub>	≤ 200 mA
Conductor size0.25 mm²Conductor size0.25 mm²Cable diameter0.30 mmShort-circuit protection✓Reverse polarity protection✓Power-up pulse protection✓Power-up pulse protection✓Anbient operating temperatureOg 11 ms/10 Hz55 Hz, 1 mmAnbient operating temperatureBrass, nickel-platedFousing materialPostic, PA 66Housing length24 mmTiptening torque, max.212 Nm	No load current	≤ 10 mA
Cable diameterØ 3.9 mmShort-circuit protection✓Reverse polarity protection✓Power-up pulse protection✓Shock and vibration resistanceØ 3.0 g. 11 ms/10 Hz 55 Hz. 1 mmAmbient operating temperatureØ 25 °C +75 °CHousing materialBrass, nickel-platedSensing face materialPlastic, PA 66Housing length24 mmThread length24 mmState of the state of	Cable material	PVC
Short-circuit protection·Reverse polarity protection·Power-up pulse protection·Shock and vibration resistance0g 11 ms/10 Hz 55 Hz, 1 mmAmbient operating temperature-25 °C +75 °CHousing materialBrass, nickel-platedSensing face materialPlatic, PA 66Housing length44 mmThread length24 mmState of the state of the	Conductor size	0.25 mm <sup>2</sup>
Reverse polarity protection✓Power-up pulse protection✓Shock and vibration resistance30 g. 11 ms/10 Hz 55 Hz, 1 mmAmbient operating temperature-25 °C +75 °CHousing materialBrass, nickel-platedSensing face materialPlastic, PA 66Housing length44 mmThread length24 mmSensing torque, max.≤ 12 Nm	Cable diameter	Ø 3.9 mm
Power-up pulse protection✓Shock and vibration resistance30 g. 11 ms/10 Hz 55 Hz, 1 mmAmbient operating temperature-25 °C +75 °CHousing materialBrass, nickel-platedSensing face materialPlastic, PA 66Housing length44 mmThread length24 nmState length21 Nm	Short-circuit protection	✓
Shock and vibration resistance30 g. 11 ms/10 Hz 55 Hz, 1 mmAmbient operating temperature-25 °C +75 °CHousing materialBrass, nickel-platedSensing face materialPlastic, PA 66Housing length44 mmThread length24 mmSightening torque, max.= 12 Nm	Reverse polarity protection	✓
Ambient operating temperature-25 °C +75 °CHousing materialBrass, nickel-platedSensing face materialPlastic, PA 66Housing length44 mmThread length24 mmTightening torque, max.≤ 12 Nm	Power-up pulse protection	✓
Housing materialBrass, nickel-platedSensing face materialPlastic, PA 66Housing length44 mmThread length24 nmSensing torque, max.21 Nm	Shock and vibration resistance	30 g, 11 ms/10 Hz 55 Hz, 1 mm
Sensing face material Plastic, PA 66   Housing length 44 mm   Thread length 24 mm   Tightening torque, max. > 12 Nm	Ambient operating temperature	-25 °C +75 °C
Housing length 44 mm   Thread length 24 mm   Tightening torque, max. ≤ 12 Nm	Housing material	Brass, nickel-plated
Thread length 24 mm   Tightening torque, max. ≤ 12 Nm	Sensing face material	Plastic, PA 66
Tightening torque, max. ≤ 12 Nm	Housing length	44 mm
	Thread length	24 mm
UL File No. NRKH.E181493	Tightening torque, max.	≤ 12 Nm
	UL File No.	NRKH.E181493

 $^{1)}$  At I<sub>a</sub> max.

 $^{\rm 2)}$  Supply voltage  ${\rm U}_{\rm B}$  and constant ambient temperature Ta.

 $^{\rm 3)}$  Of Sr.

### Safety-related parameters

MTTF <sub>D</sub>	1,735 years
DC <sub>avg</sub>	0 %

### **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"
A	12 mm
В	24 mm
c	12 mm
D	24 mm
E	16 mm

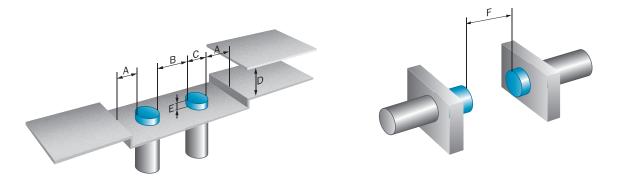
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-	<b>a</b>
F	64 mm
Classifications	
ECLASS 5.0	27270101
ECLASS 5.1.4	27270101
ECLASS 6.0	27270101
ECLASS 6.2	27270101
ECLASS 7.0	27270101
ECLASS 8.0	27270101
ECLASS 8.1	27270101
ECLASS 9.0	27270101
ECLASS 10.0	27270101
ECLASS 11.0	27270101
ECLASS 12.0	27274001
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0	EC002714
ETIM 8.0	EC002714
UNSPSC 16.0901	39122230

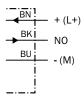
### Installation note

Non-flush installation



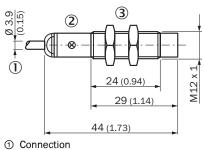
### **Connection diagram**

Cd-001



## Dimensional drawing (Dimensions in mm (inch))

#### IME12 Short-body housing, cable, non-flush



- 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 bra	ckets and plates		
	Mounting plate for M12 sensors, steel, zinc coated, without mounting hardware	BEF-WG-M12	5321869
40	Mounting bracket for M12 sensors, steel, zinc coated, without mounting hardware	BEF-WN-M12	5308447
Terminal and alignment brackets			
ir C	Clamping block for round sensors M12, without fixed stop, plastic (PA12), glass-fiber re- inforced, mounting hardware included	BEF-KH-M12	2051479
	Clamping block for round sensors M12, with fixed stop, plastic (PA12), glass-fiber rein- forced, mounting hardware included	BEF-KHF-M12	2051480

# 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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Online data sheet

