

**INDUCTIVE PROXIMITY SENSORS** 



# IME12-04NPSZU6S | IME

INDUCTIVE PROXIMITY SENSORS



## Ordering information

Туре	Part no.
IME12-04NPSZU6S	1043256

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	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.

 $^{2)}$  Supply voltage  $U_{B}$  and constant ambient temperature Ta.

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

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Hysteresis	5 % 15 %
Reproducibility	$\leq 2 \%^{(2)(3)}$
Temperature drift (of S <sub>r</sub> )	± 10 %
EMC	According to EN 60947-5-2
Continuous current I <sub>a</sub>	≤ 200 mA
No load current	≤ 10 mA
Cable material	PUR
Conductor size	0.25 mm <sup>2</sup>
Cable diameter	Ø 3.9 mm
Short alreadt protection	1
Short-circuit protection	*
Power-up pulse protection	<ul> <li>✓</li> <li>✓</li> </ul>
Power-up pulse protection	✓
Power-up pulse protection Shock and vibration resistance	✓ 30 g, 11 ms/10 Hz 55 Hz, 1 mm
Power-up pulse protection Shock and vibration resistance Ambient operating temperature	✓ 30 g, 11 ms/10 Hz 55 Hz, 1 mm -25 °C +75 °C
Power-up pulse protection Shock and vibration resistance Ambient operating temperature Housing material	✓ 30 g, 11 ms/10 Hz 55 Hz, 1 mm -25 °C +75 °C Brass, nickel-plated
Power-up pulse protection Shock and vibration resistance Ambient operating temperature Housing material Sensing face material	✓ 30 g, 11 ms/10 Hz 55 Hz, 1 mm -25 °C +75 °C Brass, nickel-plated Plastic, PA 66
Power-up pulse protection Shock and vibration resistance Ambient operating temperature Housing material Sensing face material Housing length	✓ 30 g, 11 ms/10 Hz 55 Hz, 1 mm -25 °C +75 °C Brass, nickel-plated Plastic, PA 66 63 mm

## <sup>1)</sup> At I<sub>a</sub> max.

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

<sup>3)</sup> 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	12 mm
E	8 mm
F	32 mm

# IME12-04NPSZU6S | IME

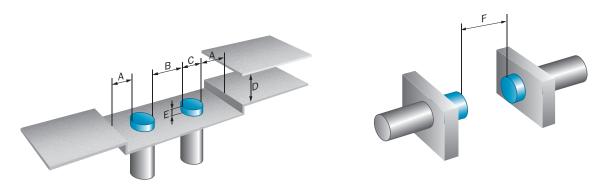
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#### Classifications

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**

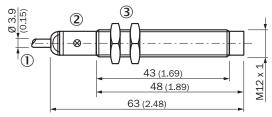
Cd-001



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

IME12 standard, cable, non-flush



 $\textcircled{1} \quad \textbf{Connection}$ 

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 brac	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			
	Clamping block for round sensors M12, without fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included $% \left( \frac{1}{2}\right) =0$	BEF-KH-M12	2051479
	Clamping block for round sensors M12, with fixed stop, plastic (PA12), glass-fiber reinforced, mounting hardware included	BEF-KHF-M12	2051480

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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:

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Online data sheet

