



# IME12-3B2PSZC0SS80

IME

INDUCTIVE PROXIMITY SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



## Ordering information

Type	part no.
IME12-3B2PSZCOSS80	1148359

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

Other models and accessories → [www.sick.com/IME](http://www.sick.com/IME)

## Detailed technical data

### Features

<b>Housing</b>	Metric
<b>Housing</b>	Standard design
<b>Thread size</b>	M12 x 1
<b>Diameter</b>	Ø 12 mm
<b>Sensing range <math>S_n</math></b>	3.2 mm
<b>Safe sensing range <math>S_a</math></b>	2.59 mm
<b>Installation type</b>	Flush
<b>Switching frequency</b>	2,000 Hz
<b>Connection type</b>	Male connector M12, 4-pin
<b>Switching output</b>	PNP
<b>Switching output detail</b>	PNP
<b>Output function</b>	NO
<b>Electrical wiring</b>	DC 3-wire
<b>Enclosure rating</b>	IP67 <sup>1)</sup>
<b>Items supplied</b>	Mounting nut, brass, nickel-plated (2x)

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

### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	≤ 10 %
<b>Voltage drop</b>	≤ 2 V <sup>1)</sup>

<sup>1)</sup> At  $I_a$  max.

<sup>2)</sup> Supply voltage  $U_B$  and constant ambient temperature  $T_a$ .

<sup>3)</sup> Of  $S_r$ .

<b>Time delay before availability</b>	≤ 100 ms
<b>Hysteresis</b>	5 % ... 15 %
<b>Reproducibility</b>	≤ 2 % <sup>2)</sup> <sup>3)</sup>
<b>Temperature drift (of S<sub>r</sub>)</b>	± 10 %
<b>EMC</b>	According to EN 60947-5-2
<b>Continuous current I<sub>a</sub></b>	≤ 200 mA
<b>No load current</b>	≤ 10 mA
<b>Short-circuit protection</b>	✓
<b>Power-up pulse protection</b>	✓
<b>Shock and vibration resistance</b>	30 g, 11 ms/10 Hz ... 55 Hz, 1 mm
<b>Ambient operating temperature</b>	-25 °C ... +75 °C
<b>Housing material</b>	Brass, nickel-plated
<b>Sensing face material</b>	Plastic, PA 66
<b>Housing length</b>	65 mm
<b>Thread length</b>	48 mm
<b>Tightening torque, max.</b>	≤ 12 Nm
<b>UL File No.</b>	NRKH.E181493

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

<sup>2)</sup> Supply voltage U<sub>B</sub> and constant ambient temperature T<sub>a</sub>.

<sup>3)</sup> Of S<sub>r</sub>.

## Safety-related parameters

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

## Reduction factors

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

## Installation note

<b>Remark</b>	Associated graphic see "Installation"
<b>B</b>	24 mm
<b>C</b>	12 mm
<b>D</b>	12 mm
<b>F</b>	32 mm

## Certificates

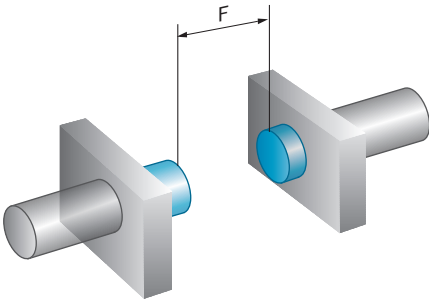
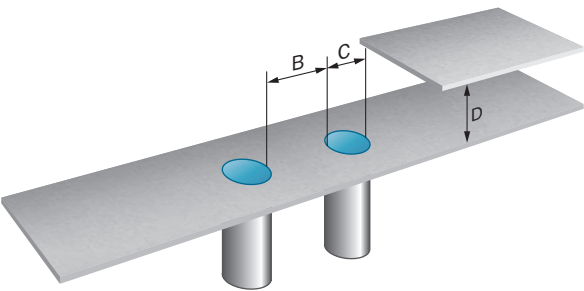
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓

Moroccan declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓

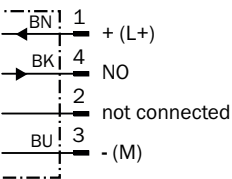
Classifications

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

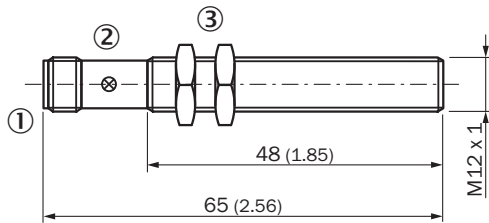
Installation note Flush installation



Connection diagram Cd-007



## Dimensional drawing IME12 Standard, 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](http://www.sick.com/IME)

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> <li><b>Description:</b> Clamping block for round sensors M12, with fixed stop</li> <li><b>Material:</b> Plastic</li> <li><b>Details:</b> Plastic (PA12), glass-fiber reinforced</li> <li><b>Items supplied:</b> Mounting hardware included</li> </ul>	BEF-KHF-M12	2051480
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting plate for M12 sensors</li> <li><b>Material:</b> Steel</li> <li><b>Details:</b> Steel, zinc coated</li> <li><b>Items supplied:</b> Without mounting hardware</li> </ul>	BEF-WG-M12	5321869
	<ul style="list-style-type: none"> <li><b>Description:</b> Mounting bracket for M12 sensors</li> <li><b>Material:</b> Steel</li> <li><b>Details:</b> Steel, zinc coated</li> <li><b>Items supplied:</b> Without mounting hardware</li> </ul>	BEF-WN-M12	5308447
	<ul style="list-style-type: none"> <li><b>Description:</b> Clamping block for round sensors M12, without fixed stop</li> <li><b>Material:</b> Plastic</li> <li><b>Details:</b> Plastic (PA12), glass-fiber reinforced</li> <li><b>Items supplied:</b> Mounting hardware included</li> </ul>	BEF-KH-M12	2051479

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A14-020VB3XLEAX	2096234
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A14-050VB3XLEAX	2096235
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 10 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A14-100VB3XLEAX	2096236
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 2 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YG2A14-020VB3XLEAX	2095895
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 5 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YG2A14-050VB3XLEAX	2095897
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 10 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YG2A14-100VB3XLEAX	2095898
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 0.6 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YG2A14-C60VB3XLEAX	2145709
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, angled, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 1 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YG2A14-010VB3XLEAX	2145710
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 0.6 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A14-C60VB3XLEAX	2145707
	<ul style="list-style-type: none"> <li><b>Connection type head A:</b> Female connector, M12, 4-pin, straight, A-coded</li> <li><b>Connection type head B:</b> Flying leads</li> <li><b>Signal type:</b> Sensor/actuator cable</li> <li><b>Cable:</b> 1 m, 4-wire, PVC</li> <li><b>Description:</b> Sensor/actuator cable, unshielded</li> <li><b>Application:</b> Zones with chemicals, Uncontaminated zones</li> </ul>	YF2A14-010VB3XLEAX	2145708

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