



IME12-04BPSZT0KP01

IME

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	part no.
IME12-04BPSZTKP01	1046196

Included in delivery: BEF-MU-M12 (1), IME12-04BPSZTK (50)

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

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_a	3.24 mm
Installation type	Flush
Switching frequency	2,000 Hz
Connection type	Connector M8, 3-pin
Switching output	PNP
Switching output detail	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 ¹⁾
Special characteristic	Cap color = black 50 pieces per pack
Items supplied	IME12-04BPSZTK #1042973 (50 x) Mounting nut, brass, nickel-plated (100x)

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
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¹⁾ At I_a max.

²⁾ Supply voltage U_B and constant ambient temperature T_a .

³⁾ Of S_r .

Ripple	≤ 10 %
Voltage drop	≤ 2 V ¹⁾
Time delay before availability	≤ 100 ms
Hysteresis	5 % ... 15 %
Reproducibility	≤ 2 % ²⁾ 3)
Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 mA
No load current	≤ 10 mA
Short-circuit protection	✓
Power-up pulse protection	✓
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	28 mm
Tightening torque, max.	≤ 12 Nm
UL File No.	NRKH.E181493

1) At I_a max.

2) Supply voltage U_B and constant ambient temperature T_a.

3) Of S_r.

Safety-related parameters

MTTF_D	1,735 years
DC_{avg}	0 %
T_M (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"
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	✓

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

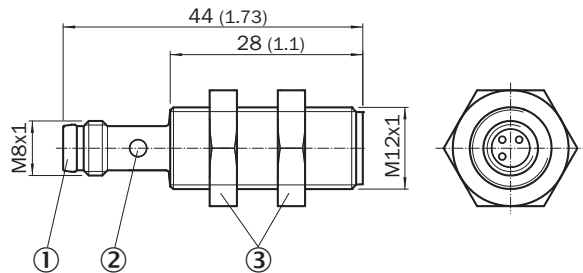
Installation note Flush installation



Connection diagram Cd-007



Dimensional drawing IME12 Short-body housing, 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	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> Description: Clamping block for round sensors M12, with fixed stop Material: Plastic Details: Plastic (PA12), glass-fiber reinforced Items supplied: Mounting hardware included 	BEF-KHF-M12	2051480
	<ul style="list-style-type: none"> Description: Mounting plate for M12 sensors Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware 	BEF-WG-M12	5321869
	<ul style="list-style-type: none"> Description: Mounting bracket for M12 sensors Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware 	BEF-WN-M12	5308447
	<ul style="list-style-type: none"> Description: Clamping block for round sensors M12, without fixed stop Material: Plastic Details: Plastic (PA12), glass-fiber reinforced Items supplied: Mounting hardware included 	BEF-KH-M12	2051479

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none"> Description: Unshielded Connection type head A: Male connector, M8, 3-pin, straight, A-coded Connection systems: Screw-type terminals Permitted cross-section: 0.14 mm² ... 0.5 mm² 	STE-0803-G	6037322
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 3-wire, PVC Application: Uncontaminated zones, Zones with chemicals 	YF8U13-020VA1XLEAX	2095860
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 3-wire, PUR, halogen-free Application: Drag chain operation, Zones with oils and lubricants, Robot, Drag chain operation 	YF8U13-050UA1XLEAX	2094788
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 3-wire, PVC Application: Uncontaminated zones, Zones with chemicals 	YF8U13-050VA1XLEAX	2095884
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 3-wire, PVC Application: Uncontaminated zones, Zones with chemicals 	YF8U13-100VA1XLEAX	2095885
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 3-wire, PVC Application: Uncontaminated zones, Zones with chemicals 	YG8U13-020VA1XLEAX	2096165
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 3-wire, PVC Application: Uncontaminated zones, Zones with chemicals 	YG8U13-050VA1XLEAX	2096166
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 3-wire, PVC Application: Uncontaminated zones, Zones with chemicals 	YG8U13-100VA1XLEAX	2096209
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 0.6 m, 3-wire, PVC Application: Uncontaminated zones, Zones with chemicals 	YF8U13-C60VA1XLEAX	2146368
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 1 m, 3-wire, PVC Application: Uncontaminated zones, Zones with chemicals 	YG8U13-010VA1XLEAX	2146371
	<ul style="list-style-type: none"> Description: Sensor/actuator cable, unshielded Connection type head A: Female connector, M8, 3-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 3 m, 3-wire, PVC 	YG8U13-030VA1XLEAX	2146372

	Brief description	Type	part no.
	<ul style="list-style-type: none"> • Application: Uncontaminated zones, Zones with chemicals • Description: Sensor/actuator cable, unshielded • Connection type head A: Female connector, M8, 3-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 0.6 m, 3-wire, PVC • Application: Uncontaminated zones, Zones with chemicals 	<p>YG8U13- C60VA1XLEAX</p>	<p>2146370</p>

SICK AT A GLANCE

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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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