

IMAO8-04BE3ZCOK

INDUCTIVE PROXIMITY SENSORS



Ordering information

Туре	part no.
IMA08-04BE3ZC0K	6041782

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

Illustration may differ



Detailed technical data

Features

Housing	Metric
Thread size	M8 x 1
Diameter	Ø 8 mm
Sensing range S _n	0 mm 4 mm
Installation type	Quasi-flush
Connection type	Male connector M12, 4-pin
Output function	Analog
Repeatability (T _a not constant)	0.3 mm ^{1) 2) 3)}
Repeatability (T _a constant)	± 0.01 mm
Resolution	≤ 1 µm
Enclosure rating	IP67 ⁴⁾
Special features	Analog output, quadruple sensing range
Items supplied	Mounting nut, brass, chromium-plated (2x) Toothed washer, stainless steel (2 x)

¹⁾ As per IEC 60947-5-2.

Mechanics/electronics

Supply voltage	15 V DC 30 V DC
Ripple	≤ 20 % ¹⁾

 $^{^{1)}}$ Of V_S.

²⁾ Ub = DC 20 V ... 30 V.

 $^{^{3)}}$ TA = 23 °C ± 5 °C.

⁴⁾ According to EN 60529: 2000-09.

²⁾ At 0 °C ... +70 °C.

³⁾ At -25 °C ... 0 °C.

⁴⁾ Without load.

⁵⁾ At voltage output QA1.

 $^{^{6)}}$ -3 dB if $S_n = 2$ mm.

Time delay before availability	≤ 50 ms
Temperature drift (of S _r)	± 5 % ²⁾ ± 10 % ³⁾
No load current	\leq 10 mA $^{4)}$
Load current	\pm 10 mA $^{5)}$
Output voltage Q _{A1}	s = 0 mm: 0 V/-0 +0,4 V (23 °C) s = 2 mm: +5,2 V/ +-0,4 V (23 °C) s = 4 mm: +10 V/ +-0,4 V (23 °C)
Output voltage	0 V 10 V
Bandwidth	1,600 Hz ⁶⁾
Short-circuit protection	✓
Ambient operating temperature	-25 °C +70 °C
Housing material	Brass, chromium-plated
Sensing face material	Plastic, PTB
Housing length	66 mm
Thread length	44 mm

 $^{^{1)}}$ Of V_{S} .

Safety-related parameters

MTTF _D	117 years
DC _{avg}	0%
T _M (mission time)	20 years

Reduction factors

Note	The values are reference values which may vary
Stainless steel (V2A, 304)	Approx. 0.68
Aluminum (AI)	Approx. 0.28
Copper (Cu)	Approx. 0.25
Brass (Br)	Approx. 0.4

Installation note

Remark	Associated graphic see "Installation"
A	4 mm
В	12 mm
c	8 mm
D	12 mm
E	1 mm
F	40 mm

Certificates

EU declaration of conformity	✓
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²⁾ At 0 °C ... +70 °C.

 $^{^{3)}}$ At –25 °C ... 0 °C.

 $^{^{4)}}$ Without load.

⁵⁾ At voltage output QA1.

 $^{^{6)}}$ -3 dB if $S_n = 2$ mm.

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UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓

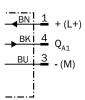
Classifications

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

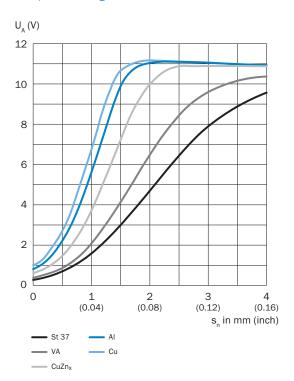
Connection type



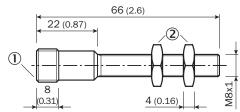
Connection diagram Cd-021



Response diagram Reduction factors



Dimensional drawing IMA08, connector, quasi-flush



Dimensions in mm (inch)

- ① Connection
- ② Fastening nuts (2x); width across 13, metal

Recommended accessories

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

	Brief description	Туре	part no.	
connectors ar	connectors and cables			
P	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YF2A14-020VB3XLEAX	2096234	
P	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235	
	Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YG2A14-020VB3XLEAX	2095895	
	Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YG2A14-050VB3XLEAX	2095897	
	Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 0.6 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YG2A14- C60VB3XLEAX	2145709	
	Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 1 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YG2A14-010VB3XLEAX	2145710	
P	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 0.6 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YF2A14- C60VB3XLEAX	2145707	
P	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 1 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals, Uncontaminated zones	YF2A14-010VB3XLEAX	2145708	
No.	Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YF2A14-050UB3XLEAX	2095608	
No.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 0.6 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded 	YF2A14- C60UB3XLEAX	2145654	

	Brief description	Туре	part no.
	Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation		
No.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 1 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A14-010UB3XLEAX	2145655
No.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 3 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YF2A14-030UB3XLEAX	2145656
3	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 0.6 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation 	YG2A14- C60UB3XLEAX	2145657
3	Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 1 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Uncontaminated zones, Zones with oils and lubricants, Robot, Drag chain operation	YG2A14-010UB3XLEAX	2145658
Mounting syst	tems		
	Description: Clamping block for round sensors M8, without fixed stop Material: Plastic Details: Plastic (PA12), glass-fiber reinforced Items supplied: Mounting hardware included	BEF-KH-M08	2051477
	Description: Clamping block for round sensors M8, with fixed stop Material: Plastic Details: Plastic (PA12), glass-fiber reinforced Items supplied: Mounting hardware included	BEF-KHF-M08	2051478
	 Description: Mounting bracket for M8 sensors Material: Steel Details: Steel, zinc coated Items supplied: Without mounting hardware 	BEF-WN-M08	5321721

SICK AT A GLANCE

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