



IM12-04BPS-ZC1

IM Standard

PRODUCT PORTFOLIO

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
IM12-04BPS-ZC1	7900037

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

Illustration may differ



Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Standard
Thread size	M12 1
Diameter	Ø 12 mm
Sensing range S_n	4 mm
Installation type	Flush
Switching frequency	1,000 Hz
Connection type	Male connector M12, 4-pin
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP67 ¹⁾

¹⁾ According to EN 60529.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 % ¹⁾
Voltage drop	≤ 1.2 V ²⁾
Current consumption	≤ 10 mA ³⁾
Time delay before availability	≤ 100 ms
Hysteresis	1 % ... 15 %
Reproducibility	≤ 5 % ⁴⁾ ⁵⁾
Temperature drift (of S_i)	± 10 %

¹⁾ Of V_S.

²⁾ At I_a max.

³⁾ Without load.

⁴⁾ U_b and T_a constant.

⁵⁾ Of S_r.

EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 mA
Short-circuit protection	✓
Reverse polarity protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	30 g, 11 ms / 10 ... 55 Hz, 1 mm
Ambient operating temperature	-25 °C ... +70 °C
Housing material	Metal, Nickel-plated brass
Sensing face material	Plastic, Plastic
Housing length	65 mm
Thread length	43 mm
Tightening torque, max.	10 Nm

1) Of V_S .

2) At I_a max.

3) Without load.

4) U_b and T_a constant.

5) Of S_r .

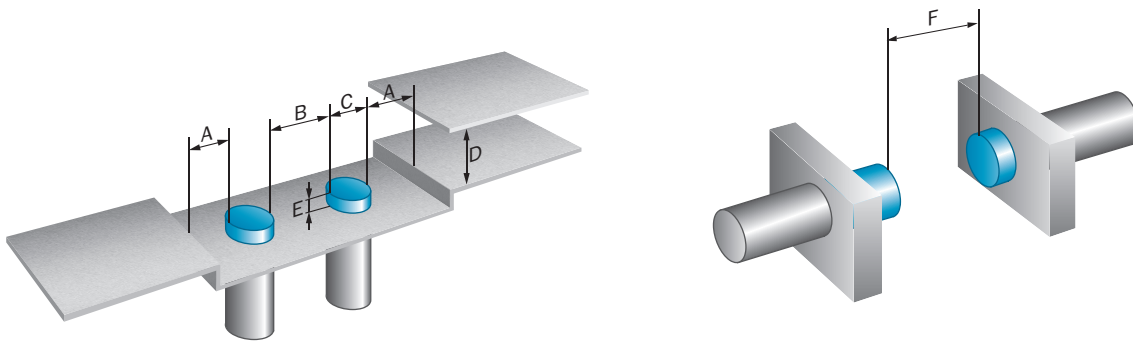
Installation note

Remark	Associated graphic see "Installation"
A	6 mm
B	12 mm
C	12 mm
D	12 mm
E	2 mm
F	32 mm

Classifications

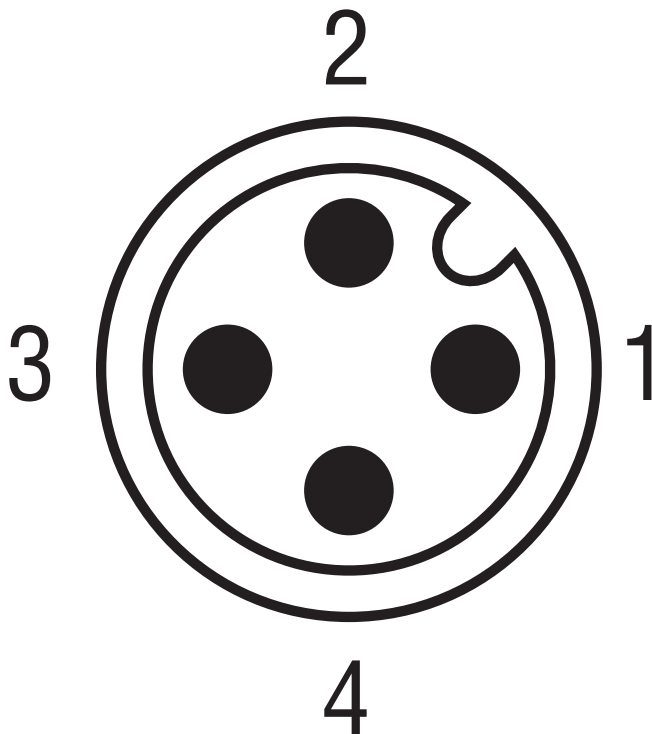
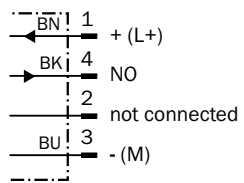
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ECl@ss 8.1	27270101
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ETIM 5.0	EC002714
ETIM 6.0	EC002714
UNSPSC 16.0901	39122230

Installation note



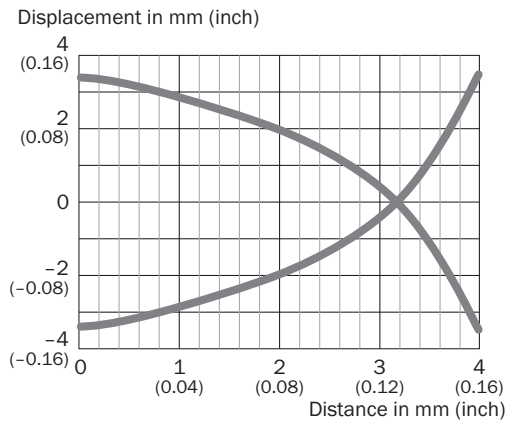
Connection diagram

cd-007

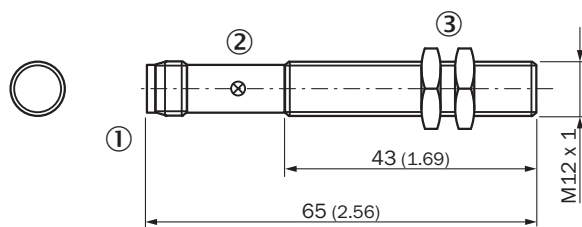


Characteristic curve

Response diagram






Dimensional drawing (Dimensions in mm (inch))



Recommended accessories

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

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting plate for M12 sensors, steel, zinc coated, without mounting hardware	BEF-WG-M12	5321869
	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	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

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A14-020VB3XLEAX	2096234
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14-050VB3XLEAX	2096235
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG2A14-020VB3XLEAX	2095895
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A14-050VB3XLEAX	2095897
	Head A: female connector, M12, 4-pin, angled with LED, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YI2A14-020VB3XLEAX	2096222
	Head A: female connector, M12, 4-pin, angled with LED, A-coded Head B: open cable ends Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YI2A14-050VB3XLEAX	2096223
	Head A: female connector, M12, 4-pin, straight Head B: - Cable: unshielded	DOS-1204-G	6007302
	Head A: female connector, M12, 4-pin, angled Head B: - Cable: unshielded	DOS-1204-W	6007303
	Head A: male connector, M12, 4-pin, straight Head B: - Cable: unshielded	STE-1204-G	6009932
	Head A: male connector, M12, 4-pin, angled Head B: - Cable: unshielded	STE-1204-W	6022084

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