



IMG12-04BPSZU2S

IMB

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
IMG12-04BPSZU2S	1108130

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

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

Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Standard design
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	Cable, 3-wire, 2 m
Switching output	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68 ¹⁾ IP69K ²⁾
Items supplied	Mounting nut, brass, nickel-plated (2x)

¹⁾ According to EN 60529.

²⁾ According to ISO 20653:2013-03.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 2 V ¹⁾
Hysteresis	3 % ... 20 %
Reproducibility	≤ 2 % ^{2) 3)}

¹⁾ At I_a max.

²⁾ Supply voltage U_b and constant ambient temperature T_a .

³⁾ Of S_r .

Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 mA
No load current	≤ 10 mA
Cable material	PUR
Conductor size	0.34 mm ²
Cable diameter	Ø 4.5 mm
Short-circuit protection	✓
Reverse polarity protection	✓
Power-up pulse protection	✓
Shock and vibration resistance	100 g / 2 ms / 500 cycles; 150 g / 1 Mio cycles; 10 Hz ... 55 Hz / 1 mm; 55 Hz ... 500 Hz / 60 g
Ambient operating temperature	-25 °C ... +75 °C
Housing material	Brass, nickel-plated
Sensing face material	Plastic, LCP
Housing length	50 mm
Thread length	46 mm
Tightening torque, max.	≤ 12 Nm
Protection class	III
UL File No.	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	1,750 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. 0.65
Aluminum (Al)	Approx. 0.35
Copper (Cu)	Approx. 0.24
Brass (Br)	Approx. 0.38

Installation note

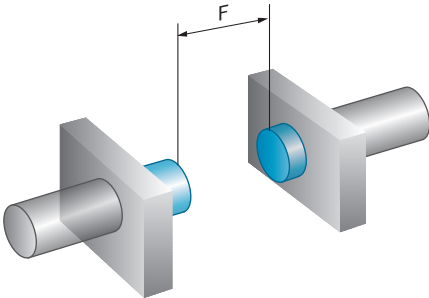
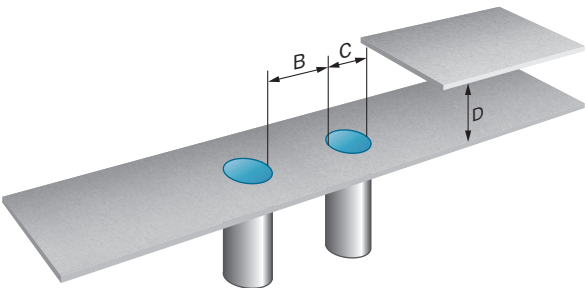
Remark	Associated graphic see "Installation"
B	12 mm
C	12 mm
D	12 mm
F	32 mm

Classifications

eCl@ss 5.0	27270101
eCl@ss 5.1.4	27270101
eCl@ss 6.0	27270101
eCl@ss 6.2	27270101
eCl@ss 7.0	27270101
eCl@ss 8.0	27270101
eCl@ss 8.1	27270101
eCl@ss 9.0	27270101
eCl@ss 10.0	27270101
eCl@ss 11.0	27270101
eCl@ss 12.0	27274001
ETIM 5.0	EC002714
ETIM 6.0	EC002714
ETIM 7.0	EC002714
ETIM 8.0	EC002714
UNSPSC 16.0901	39122230

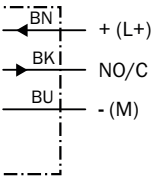
Installation note

Flush installation



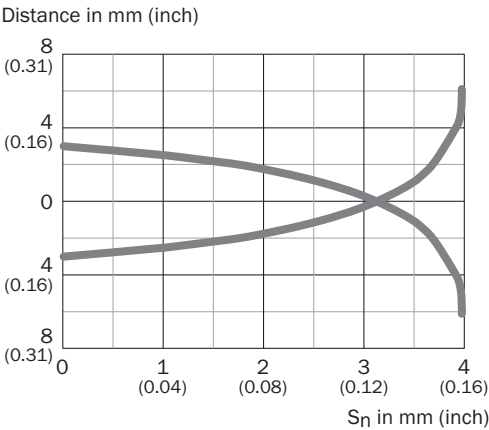
Connection diagram

Cd-452



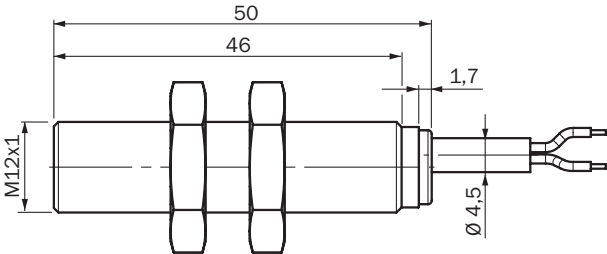
Response diagram

Response diagram



Dimensional drawing (Dimensions in mm (inch))

IMG12 standard, cable, flush



Recommended accessories

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

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N05N for universal clamp bracket, M12, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp (5322627), mounting hardware	BEF-KHS-N05N	2051621
Mounting brackets and plates			
	Mounting plate for M12 sensors, stainless steel, without mounting hardware	BEF-WG-M12N	5320950
	Mounting bracket for M12 housing, stainless steel, without mounting hardware	BEF-WN-M12N	5320949

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