

IMG12-04BPSZU2S

IMB

INDUCTIVE PROXIMITY SENSORS





Ordering information

Туре	Part no.
IMG12-04BPSZU2S	1108130

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

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

Illustration may differ



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.

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.

 $^{^{2)}}$ According to ISO 20653:2013-03.

 $^{^{\}rm 2)}$ Supply voltage Ub and constant ambient temperature Ta.

³⁾ Of Sr.

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	$100\mathrm{g}/2$ ms / 500 cycles; 150 g / 1 Mio cycles; 10 Hz 55 Hz / 1 mm; 55 Hz 500 Hz / $60\mathrm{g}$
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 $_{\rm a}$ max.

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 (AI)	Approx. 0.35
Copper (Cu)	Approx. 0.24
Brass (Br)	Approx. 0.38

Installation note

Remark	Associated graphic see "Installation"
В	12 mm
c	12 mm
D	12 mm
F	32 mm

²⁾ Supply voltage Ub and constant ambient temperature Ta.

³⁾ Of Sr.

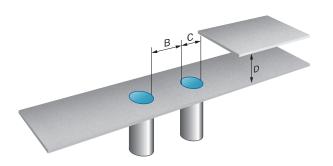
INDUCTIVE PROXIMITY SENSORS

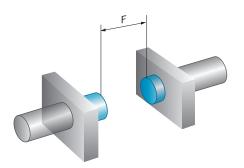
Classifications

eCI@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

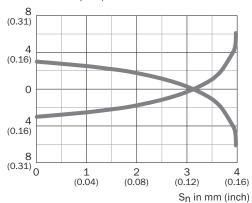
Cd-452



Response diagram

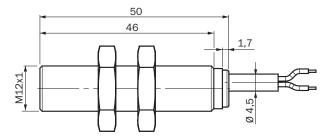
Response diagram

Distance in mm (inch)



Dimensional drawing (Dimensions in mm (inch))

IMG12 standard, cable, flush



Recommended accessories

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

	Brief description	Туре	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
40	Mounting bracket for M12 housing, stainless steel, without mounting hardware	BEF-WN-M12N	5320949

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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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