



IMF12-04BPSVC0S

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
IMF12-04BPSVC0S	6035460

Other models and accessories → www.sick.com/

Detailed technical data

Features

Housing	Metric
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	Male connector M12, 4-pin
Switching output	PNP
Switching output detail	PNP
Output function	NO
Electrical wiring	DC 3-wire
Enclosure rating	IP68 ¹⁾ IP69K ²⁾
Special features	Resistant to cleaning agents
Special applications	Hygienic and washdown zones, Difficult application conditions

¹⁾ According to EN 60529.

²⁾ According to EN 40050.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Ripple	≤ 10 %
Voltage drop	≤ 2 V ¹⁾
Time delay before availability	Approx. 50 ms

¹⁾ At I_a max.

²⁾ Supply voltage U_B and constant ambient temperature T_a .

³⁾ Of S_r .

⁴⁾ +100 °C for 15 minutes.

Hysteresis	1 % ... 20 %
Reproducibility	5 % ²⁾ ³⁾
Temperature drift (of S_r)	± 10 %
EMC	According to EN 60947-5-2
Continuous current I_a	≤ 200 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	-40 °C ... +80 °C ⁴⁾
Housing material	Stainless steel V4A, DIN 1.4404 / AISI 316L
Sensing face material	Plastic, PPS
Housing length	65 mm
Thread length	39 mm
Tightening torque, max.	20 Nm

¹⁾ At I_a max.

²⁾ Supply voltage U_B and constant ambient temperature Ta.

³⁾ Of S_r.

⁴⁾ +100 °C for 15 minutes.

Safety-related parameters

MTTF_D	212 years
DC_{avg}	0 %

Reduction factors

Note	The values are reference values which may vary
Stainless steel (V2A, 304)	Approx. 0.75
Aluminum (Al)	Approx. 0.35
Copper (Cu)	Approx. 0.3
Brass (Br)	Approx. 0.4

Installation note

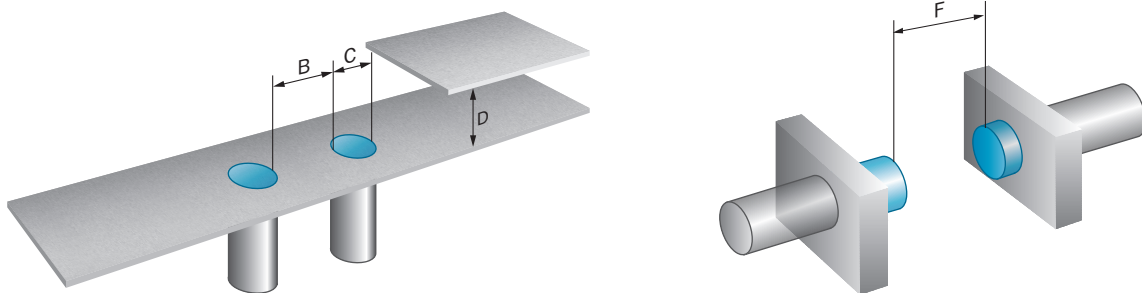
Remark	Associated graphic see "Installation"
A	6 mm
B	12 mm
C	12 mm
D	12 mm
E	Aluminium: 2.4 mm, Steel: 0 mm, Brass: 2.4 mm, Stainless steel: 0 mm
F	32 mm

Classifications

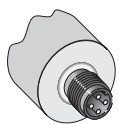
ECLASS 5.0	27270101
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ECLASS 6.0	27270101
ECLASS 6.2	27270101

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

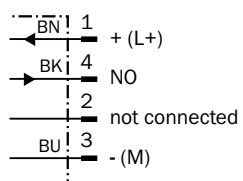
Installation note Flush installation



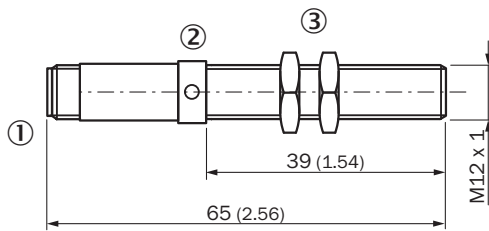
Connection type



Connection diagram Cd-007



Dimensional drawing IMF12, flush



Dimensions in mm (inch)

① Connection

② Display LED

③ fastening nuts (2 x); width across 17, stainless steel

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:

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