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Product data sheet



IMF12-08NPPNS6S

IMF

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.

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IMF12-08NPPNS6S | IMF

INDUCTIVE PROXIMITY SENSORS



Illustration may differ

Ordering information

Type	Part no.
IMF12-08NPPNS6S	1119172

Included in delivery: BEF-MU-M12N1 (1)

Other models and accessories ➜ www.sick.com/IMF

Detailed technical data

Features

Housing	Cylindrical thread design
Housing	Standard design
Thread size	M12 x 1
Diameter	Ø 12 mm
Sensing range S_n	8 mm
Safe sensing range S_a	6.48 mm
Installation type	Non-flush
Switching frequency	2,000 Hz
Connection type	Cable, 4-wire, 10 m [1]
Switching output	PNP
Output function	Complementary
Electrical wiring	DC 4-wire
Enclosure rating	IP68 [2] IP69K [3]
Special features	Resistant to cleaning agents, IO-Link, Temperature resistance
Special applications	Hygienic and washdown zones, Difficult application conditions
Items supplied	Mounting nut, V4A stainless steel (2x)

[1] With gold plated contact pins.
[2] According to EN 60529.
[3] According to ISO 20653:2013-03.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC

[1] At I_a max.
[2] Ub and Ta constant.
[3] Of Sr.

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Ripple	≤ 10 %
Voltage drop	≤ 2 V [1]
Hysteresis	3 % ... 20 %
Reproducibility	≤ 2 % [2] [3]
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	PP
Conductor size	0.34 mm²
Cable diameter	Ø 4.6 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	–40 °C ... +100 °C
Housing material	Stainless steel V4A, DIN 1.4404 / AISI 316L
Sensing face material	Plastic, LCP
Housing length	65 mm
Thread length	43 mm
Tightening torque, max.	Typ. 32 Nm
Protection class	III
UL File No.	E181493

[1] At I_a max.
[2] Ub and Ta constant.
[3] Of Sr.

Safety-related parameters

$MTTF_D$	1,687 years
DC_{avg}	0 %
T_M (mission time)	20 years

Communication interface

Communication interface	IO-Link V1.0
Communication Interface detail	COM2 (38,4 kBaud)
Process data length	1 Byte
Process data structure	Bit 0 = Sr reached Bit 1 = Sa reached

Reduction factors

Note	The values are reference values which may vary
Stainless steel (V2A, 304)	Approx. 0.67
Aluminum (Al)	Approx. 0.42

Copper (Cu)	Approx. 0.35
Brass (Br)	Approx. 0.42

Installation note

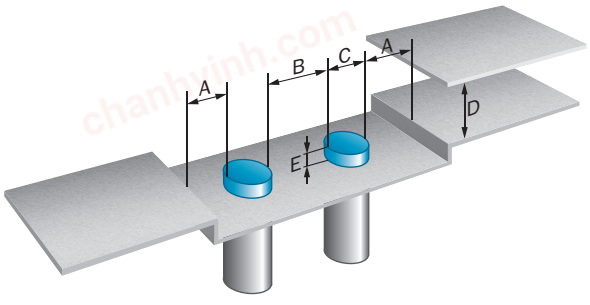
Remark	Associated graphic see "Installation"
A	12 mm
B	24 mm
C	12 mm
D	24 mm
E	16 mm
F	64 mm

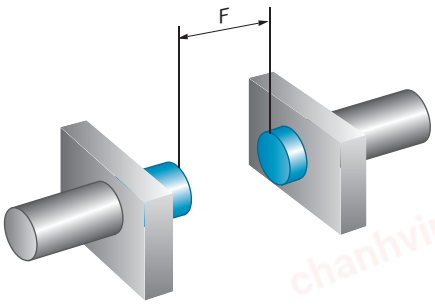
Classifications

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

Non-flush installation

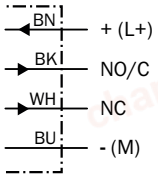




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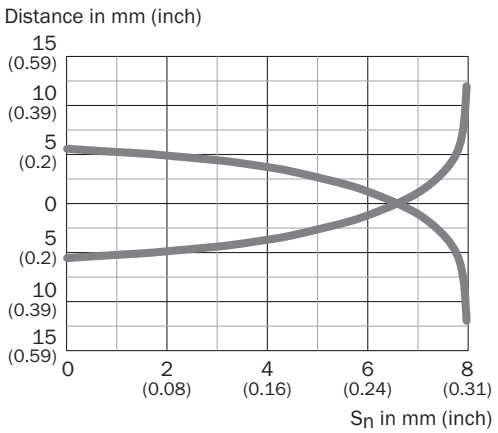
Connection diagram

Cd-454



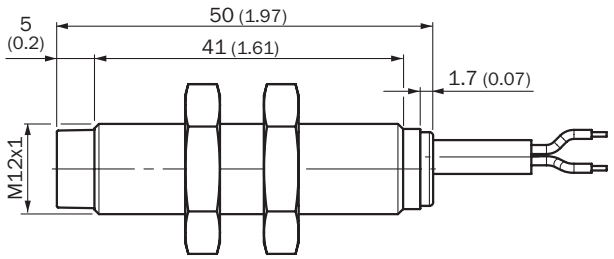
Characteristic curve

Response diagram



Dimensional drawing (Dimensions in mm (inch))

IMF12 Standard, cable, non-flush



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Recommended accessories

Other models and accessories ➜ www.sick.com/IMF

	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

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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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