Online data sheet



IH06-04NNS-VW1

IMM

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	Part no.
IH06-04NNS-VW1	7900182

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

Detailed technical data

Features

Housing	Cylindrical smooth housing
Housing	Standard design
Diameter	Ø 6.5 mm
Sensing range S_n	4 mm
Safe sensing range S_a	3.24 mm
Installation type	Non-flush
Switching frequency	1,800 Hz
Connection type	Cable, 3-wire, 2 m
Switching output	NPN
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	≤ 2 V [2]
Current consumption	≤ 10 mA [3]
Time delay before availability	≤ 50 ms
Hysteresis	1 % ... 20 %
Reproducibility	≤ 5 % [4] [5]
Temperature drift (of S_r)	± 10 %
EMC	EN 60947-5-2 IEC 61000-4-2: (Testlevel 2)

[1] Of V_S.
[2] With Ia = 200 mA.
[3] Without load.
[4] Ub = 20 V DC ... 30 V DC, Ta = 23 °C ± 5 °C.
[5] Of Sr.

	IEC 61000-4-4: (Testlevel 3)
Continuous current I_a	≤ 200 mA
Cable material	PVC
Conductor size	0.14 mm²
Cable diameter	Ø 3.1 mm
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	Stainless steel, Stainless steel (V2A, 304)
Sensing face material	Plastic, Plastic
Housing length	45 mm
UL File No.	NMFT2.E175606

[1] Of V_S.
[2] With Ia = 200 mA.
[3] Without load.
[4] Ub = 20 V DC ... 30 V DC, Ta = 23 °C ± 5 °C.
[5] Of Sr.

Reduction factors

Note	The values are reference values which may vary
Stainless steel (V2A, 304)	Approx. 0.77
Aluminum (Al)	Approx. 0.47
Copper (Cu)	Approx. 0.42
Brass (Br)	Approx. 0.52

Installation note

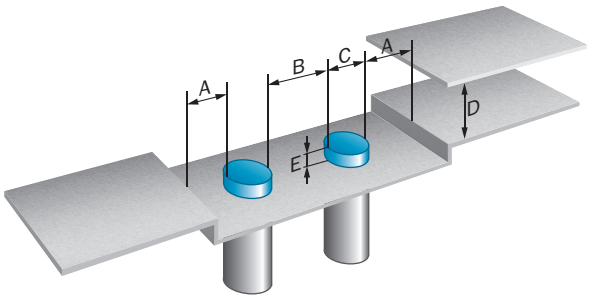
Remark	Associated graphic see "Installation"
A	6.5 mm
B	13 mm
C	6.5 mm
D	12 mm
E	8 mm
F	32 mm

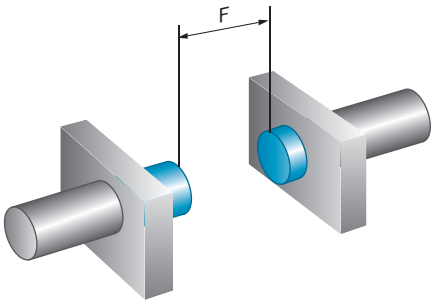
Classifications

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

ETIM 5.0	EC002714
ETIM 6.0	EC002714
UNSPSC 16.0901	39122230

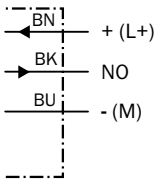
Installation note





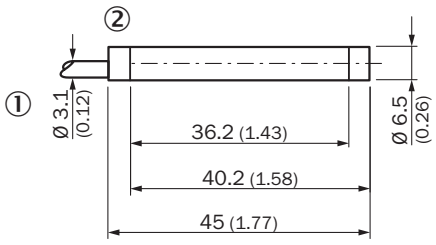
Connection diagram

cd-001



Dimensional drawing (Dimensions in mm (inch))

Standard-body, non-flush, cable



① Connection
② Indication LED

Recommended accessories

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

	Brief description	Type	Part no.
Plug connectors and cables			
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF8U13-020VA1XLEAX	2095860
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U13-050VA1XLEAX	2095884
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YF8U13-100VA1XLEAX	2095885
	Head A: female connector, M8, 3-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG8U13-020VA1XLEAX	2096165
	Head A: female connector, M8, 3-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG8U13-050VA1XLEAX	2096166
	Head A: female connector, M8, 3-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YG8U13-100VA1XLEAX	2096209
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: male connector, M12, 3-pin, straight, A-coded Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF8U13-020VA1M2A13	2096605
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: male connector, M12, 3-pin, straight, A-coded Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U13-050VA1M2A13	2096606
	Head A: female connector, M8, 3-pin, straight Head B: - Cable: unshielded	DOS-0803-G	7902077
	Head A: female connector, M8, 3-pin, angled Head B: - Cable: unshielded	DOS-0803-W	7902078
	Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	STE-0803-G	6037322

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