



IH06-04NPS-VW1

IMM

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|----------------|----------|
| IH06-04NPS-VW1 | 7900181 |

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

Illustration may differ



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 | PNP |
| 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⁾ |
| Time delay before availability | ≤ 50 ms |
| Hysteresis | 1 % ... 20 % |

¹⁾ Of V_S.

²⁾ With I_a = 200 mA.

³⁾ Supply voltage U_b and constant ambient temperature T_a.

⁴⁾ Of S_r.

| | |
|---|--|
| Reproducibility | ≤ 5 % ^{3) 4)} |
| Temperature drift (of S_r) | ± 10 % |
| EMC | EN 60947-5-2 IEC 61000-4-2: (Testlevel 2) IEC 61000-4-4: (Testlevel 3) |
| Continuous current I_a | ≤ 200 mA |
| Cable material | PVC |
| Conductor size | 0.14 mm ² |
| 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 V2A, DIN 1.4305 / AISI 303 |
| Sensing face material | Plastic, POM |
| Housing length | 45 mm |
| UL File No. | NMFT2.E175606 |

1) Of V_S.

2) With I_a = 200 mA.

3) Supply voltage U_b and constant ambient temperature T_a.

4) Of S_r.

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 |

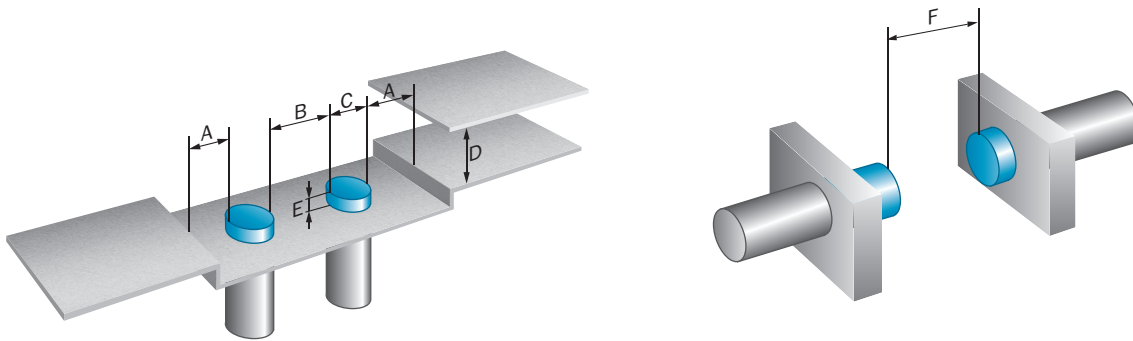
Classifications

| | |
|---------------------|----------|
| 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 |
| 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 |

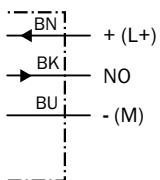
Installation note

Non-flush installation



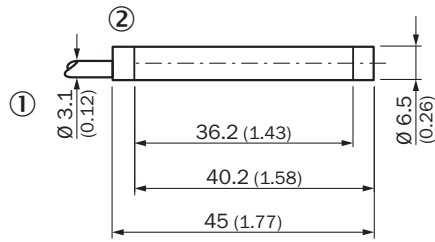
Connection diagram

Cd-001



Dimensional drawing (Dimensions in mm (inch))

Standard-body, non-flush, cable




- ① Connection
- ② Display 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 Cable: unshielded | DOS-0803-G | 7902077 |
| | Head A: female connector, M8, 3-pin, angled Cable: unshielded | DOS-0803-W | 7902078 |
| | Head A: male connector, M8, 3-pin, straight Cable: unshielded | STE-0803-G | 6037322 |

| | Brief description | Type | Part no. |
|---|--|-------------|-----------------|
| Terminal and alignment brackets | | | |
|  | Plastic (PA6), without mounting hardware | BEF-KH-M06 | 2101067 |

SICK AT A GLANCE

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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.

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