



IH03-01BNSVU2K

IMM

INDUCTIVE PROXIMITY SENSORS

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|----------------|----------|
| IH03-01BNSVU2K | 6058024 |

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

Illustration may differ



Detailed technical data

Features

| | |
|---|----------------------------------|
| Housing | Cylindrical smooth housing |
| Housing | Short-body |
| Diameter | Ø 3 mm |
| Sensing range S_n | 1 mm |
| Safe sensing range S_a | 0.81 mm |
| Installation type | Flush |
| Switching frequency | 8,000 Hz |
| Connection type | Cable, 3-wire, 2 m ¹⁾ |
| Switching output | NPN |
| Output function | NO |
| Electrical wiring | DC 3-wire |
| Enclosure rating | IP67 ²⁾ |

¹⁾ Do not bend below 0 °C.

²⁾ According to EN 60529.

Mechanics/electronics

| | |
|---|----------------------|
| Supply voltage | 10 V DC ... 30 V DC |
| Ripple | ≤ 20 % ¹⁾ |
| Voltage drop | ≤ 2 V ²⁾ |
| Time delay before availability | ≤ 10 ms |
| Hysteresis | 1 % ... 10 % |
| Reproducibility | ≤ 2 % ³⁾ |
| Temperature drift (of S_n) | ± 10 % |
| EMC | EN 60947-5-2 |

¹⁾ Of V_S.

²⁾ With I_a = 100 mA.

³⁾ Supply voltage U_B and constant ambient temperature T_a.

| | |
|---|--|
| | IEC 61000-4-2: (Testlevel 2) IEC 61000-4-4: (Testlevel 3) |
| Continuous current I_a | ≤ 100 mA |
| Cable material | PUR |
| Conductor size | 0.055 mm ² |
| Cable diameter | Ø 2.6 mm |
| Short-circuit protection | ✓ |
| Reverse polarity 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 | 12 mm |
| UL File No. | NRKH.E191603 |

1) Of V_S.

2) With I_a = 100 mA.

3) Supply voltage U_B and constant ambient temperature T_a.

Reduction factors

| | |
|-----------------------------------|--|
| Note | The values are reference values which may vary |
| Stainless steel (V2A, 304) | Approx. 0.8 |
| Aluminum (Al) | Approx. 0.5 |
| Copper (Cu) | Approx. 0.45 |
| Brass (Br) | Approx. 0.6 |

Installation note

| | |
|---------------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A | 1 mm |
| B | 2 mm |
| C | 3 mm |
| D | 3 mm |
| E | 0 mm |
| F | 8 mm |

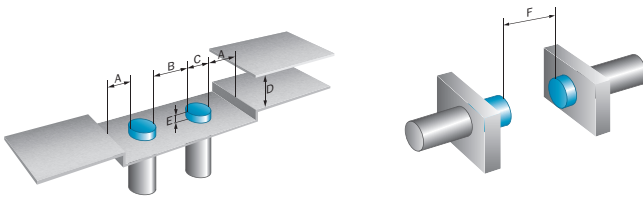
Classifications

| | |
|---------------------|----------|
| ECLASS 5.0 | 27270101 |
| ECLASS 5.1.4 | 27270101 |
| 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 |

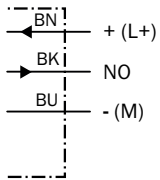
Installation note

Flush installation

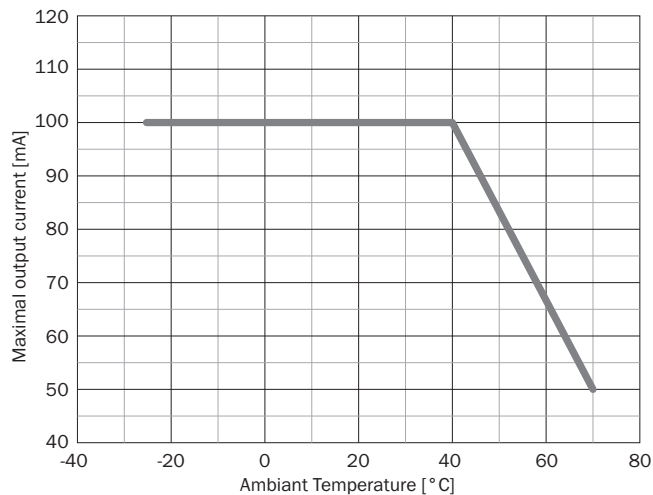


Connection diagram

Cd-001

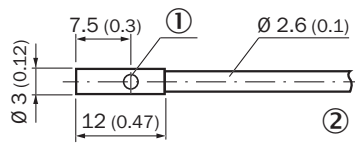


Temperature derating



Dimensional drawing (Dimensions in mm (inch))






Ultrashort, flush, cable








- ① Display LED
- ② Connection

Recommended accessories

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

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
| Plug connectors and cables | | | |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, straight • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: 0.14 mm² ... 0.5 mm² | DOS-0803-G | 7902077 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, angled • Description: Unshielded • Connection systems: Solder connection • Permitted cross-section: ≤ 0.25 mm² | DOS-0803-W | 7902078 |
|  | <ul style="list-style-type: none"> • Connection type head A: Male connector, M8, 3-pin, straight • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: 0.14 mm² ... 0.5 mm² | STE-0803-G | 6037322 |
| Terminal and alignment brackets | | | |
|  | Plastic (PA6), without mounting hardware | BEF-KH-M03 | 2101064 |
| Others | | | |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 2 m, 3-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF8U13-020VA1XLEAX | 2095860 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 3-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF8U13-050VA1XLEAX | 2095884 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 3-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF8U13-100VA1XLEAX | 2095885 |

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 2 m, 3-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YG8U13-020VA1XLEAX | 2096165 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 3-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YG8U13-050VA1XLEAX | 2096166 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, angled, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 3-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YG8U13-100VA1XLEAX | 2096209 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, straight, A-coded • Connection type head B: Male connector, M12, 3-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 2 m, 3-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF8U13-020VA1M2A13 | 2096605 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 3-pin, straight, A-coded • Connection type head B: Male connector, M12, 3-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 5 m, 3-wire, PVC • Description: Sensor/actuator cable, unshielded • Application: Zones with chemicals | YF8U13-050VA1M2A13 | 2096606 |

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