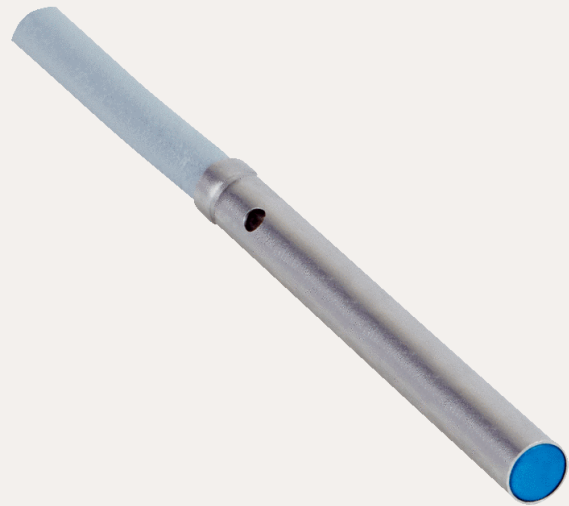




DATA SHEET

# IH03-0B6PO-VU1

IMM  
Inductive proximity sensors

**SICK** Sensor Intelligence



Illustration may differ

# INDUCTIVE PROXIMITY SENSORS

## IH03-0B6PO-VU1

### ORDERING INFORMATION

| Type           | part no. |
|----------------|----------|
| IH03-0B6PO-VU1 | 6020143  |

Further device versions and accessories at [www.sick.com/IMM](http://www.sick.com/IMM)



### DETAILED TECHNICAL DATA

#### FEATURES

|                          |                    |
|--------------------------|--------------------|
| Housing                  | Cylindrical        |
| Housing                  | Standard design    |
| Diameter                 | Ø 3 mm             |
| Sensing range $S_n$      | 0.6 mm             |
| Safe sensing range $S_a$ | 0.486 mm           |
| Installation type        | Flush              |
| Switching frequency      | 5,000 Hz           |
| Connection type          | Cable, 3-wire, 2 m |
| Switching output         | PNP                |
| Switching output detail  | PNP                |
| Output function          | NC                 |
| Electrical wiring        | DC 3-wire          |
| Enclosure rating         | IP67 <sup>1)</sup> |

<sup>1)</sup> According to EN 60529.

#### MECHANICS/ELECTRONICS

|                |                     |
|----------------|---------------------|
| Supply voltage | 10 V DC ... 30 V DC |
|----------------|---------------------|

<sup>1)</sup> Of  $V_{DC}$ .

<sup>2)</sup> With  $I_a = 100$  mA.

<sup>3)</sup> Supply voltage  $U_s$  and constant ambient temperature  $T_a$ .

|                                        |                                                                              |
|----------------------------------------|------------------------------------------------------------------------------|
| Ripple                                 | $\leq 20\%$ <sup>1)</sup>                                                    |
| Voltage drop                           | $\leq 2\text{ V}$ <sup>2)</sup>                                              |
| Time delay before availability         | $\leq 10\text{ ms}$                                                          |
| Hysteresis                             | 1% ... 10%                                                                   |
| Reproducibility                        | $\leq 2\%$ <sup>3)</sup>                                                     |
| Temperature drift (of S <sub>i</sub> ) | $\pm 10\%$                                                                   |
| EMC                                    | EN 60947-5-2<br>IEC 61000-4-2: (Testlevel 2)<br>IEC 61000-4-4: (Testlevel 2) |
| Continuous current I <sub>s</sub>      | $\leq 100\text{ mA}$                                                         |
| Cable material                         | PUR                                                                          |
| Conductor size                         | 0.06 mm <sup>2</sup>                                                         |
| Cable diameter                         | Ø 2.6 mm                                                                     |
| Short-circuit 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                         | 22 mm                                                                        |
| UL File No.                            | NRKH.E191603                                                                 |

<sup>1)</sup> Of V<sub>s</sub>.

<sup>2)</sup> With I<sub>a</sub> = 100 mA.

<sup>3)</sup> Supply voltage U<sub>s</sub> and constant ambient temperature T<sub>a</sub>.

## SAFETY-RELATED PARAMETERS

|                               |           |
|-------------------------------|-----------|
| MTTF <sub>D</sub>             | 186 years |
| DC <sub>avg</sub>             | 0%        |
| T <sub>M</sub> (mission time) | 20 years  |

## REDUCTION FACTORS

|                            |                                                |
|----------------------------|------------------------------------------------|
| Note                       | The values are reference values which may vary |
| Stainless steel (V2A, 304) | Approx. 0.8                                    |
| Aluminum (Al)              | Approx. 0.55                                   |
| Copper (Cu)                | Approx. 0.5                                    |
| Brass (Br)                 | Approx. 0.65                                   |

## INSTALLATION NOTE

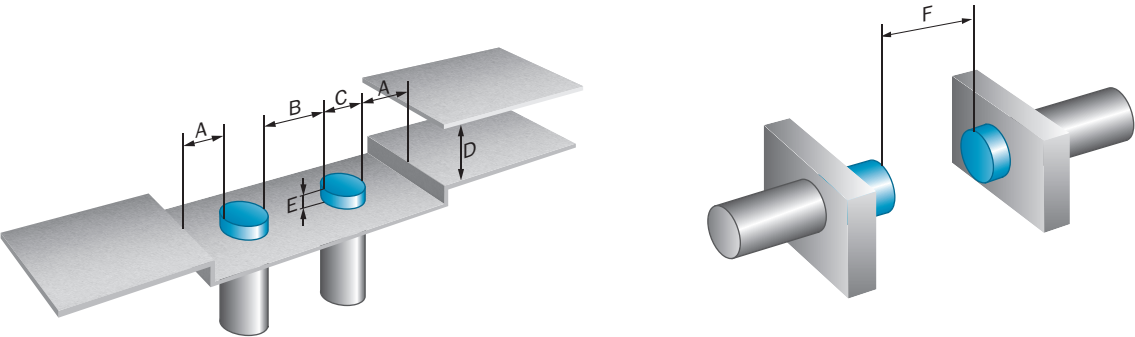
|        |                                       |
|--------|---------------------------------------|
| Remark | Associated graphic see "Installation" |
| A      | 0.5 mm                                |
| B      | 2 mm                                  |
| C      | 3 mm                                  |
| D      | 1.8 mm                                |
| E      | 0 mm                                  |
| F      | 5 mm                                  |

## CERTIFICATES

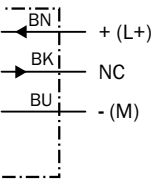
|                              |   |
|------------------------------|---|
| EU declaration of conformity | ✓ |
|------------------------------|---|

|                                    |   |
|------------------------------------|---|
| UK declaration of conformity       | ✓ |
| ACMA declaration of conformity     | ✓ |
| Moroccan declaration of conformity | ✓ |

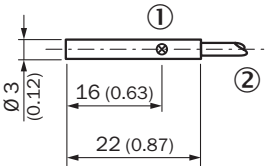
INSTALLATION NOTE FLUSH INSTALLATION



CONNECTION DIAGRAM CD-003



DIMENSIONAL DRAWING STANDARD-BODY, FLUSH, CABLE



Dimensions in mm (inch)  
① Display LED  
② Connection

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at [www.sick.com/6020143](http://www.sick.com/6020143)



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SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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Sensor Intelligence