



## Inductive proximity sensors Rectangular housing, IQ05

IQ05-0B8NS-ZU1



**Model Name** > [IQ05-0B8NS-ZU1](#)  
**Part No.** > [6020162](#)



#### At a glance

- Sensing distance of 0.8 mm
- Can be flush mounted
- High switching frequency
- Short-circuit protection (pulsed)
- Rugged, nickel-plated brass housing
- IP 67 enclosure rating
- Extremely small and space-saving

#### Your benefits

- Time- saving, easy installation in space-critical applications
- Reliable detection of fast handling and assembly processes
- Quick and easy installation saves time
- Compact housing provides a high degree of design freedom



#### Features

|                           |                     |
|---------------------------|---------------------|
| Housing:                  | Rectangular         |
| Dimensions (W x H x D):   | 5 mm x 5 mm x 25 mm |
| Sensing range Sn:         | 0.8 mm              |
| Assured sensing range Sa: | 0.648 mm            |
| Installation type:        | Flush               |
| Switching frequency:      | 5,000 Hz            |
| Output type:              | NPN                 |
| Output function:          | NO                  |
| Electrical wiring:        | DC 3-wire           |
| Enclosure rating:         | IP 67 <sup>1)</sup> |
| Connection type:          | Cable, 3-wire, 2 m  |

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

#### Mechanics/electronics

|                                 |                       |
|---------------------------------|-----------------------|
| Supply voltage:                 | 10 V DC ... 30 V DC   |
| Ripple:                         | ≤ 20 % <sup>1)</sup>  |
| Voltage drop:                   | ≤ 2 V <sup>2)</sup>   |
| Power consumption:              | ≤ 10 mA <sup>3)</sup> |
| Time delay before availability: | ≤ 10 ms               |
| Hysteresis:                     | 1 % ... 10 %          |

|                                 |                                |
|---------------------------------|--------------------------------|
| Repeatability:                  | $\leq 1.5\%$ <sup>4)</sup>     |
| Temperature drift (% of Sr):    | $\pm 10\%$                     |
| EMC:                            | According to EN 60947-5-2      |
| Output current I <sub>a</sub> : | $\leq 200\text{ mA}$           |
| Cable material:                 | PUR                            |
| Conductor cross-section:        | 0.06 mm <sup>2</sup>           |
| Short-circuit protection:       | ✓                              |
| Reverse polarity protection:    | ✓                              |
| Power-up pulse protection:      | ✓                              |
| Shock/vibration:                | 30 g, 11 ms/10 ... 55 Hz, 1 mm |
| Ambient operating temperature:  | -25 °C ... 70 °C               |
| Housing material:               | Metal, Chrome-plated brass     |
| Sensing face material:          | Plastic, Polyester             |

<sup>1)</sup> Of V<sub>S</sub> <sup>2)</sup> At I<sub>a</sub> max <sup>3)</sup> Without load <sup>4)</sup> U<sub>b</sub> = 20 V DC ... 30 V DC, T<sub>a</sub> = 23 °C  $\pm$  5 °C

### Reduction factors

|                             |                                                |
|-----------------------------|------------------------------------------------|
| Note:                       | The values are reference values which may vary |
| Stainless steel (V2A, 304): | Ca. 0.85                                       |
| Copper (Cu):                | Ca. 0.6                                        |
| Aluminum (Al):              | Ca. 0.6                                        |
| Brass (Br):                 | Ca. 0.7                                        |

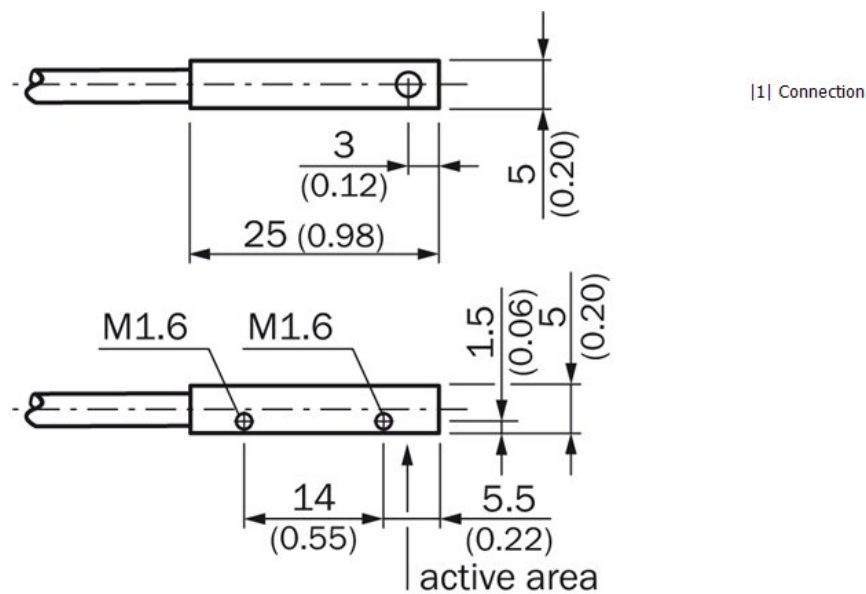
### Installation note

|         |                                       |
|---------|---------------------------------------|
| A:      | 0.8 mm                                |
| B:      | 0 mm                                  |
| C:      | 5 mm                                  |
| D:      | 2.4 mm                                |
| E:      | 0 mm                                  |
| F:      | 7 mm                                  |
| G:      | 3,3 mm                                |
| Remark: | Associated graphic see "Installation" |

Installation note



Dimensional drawing

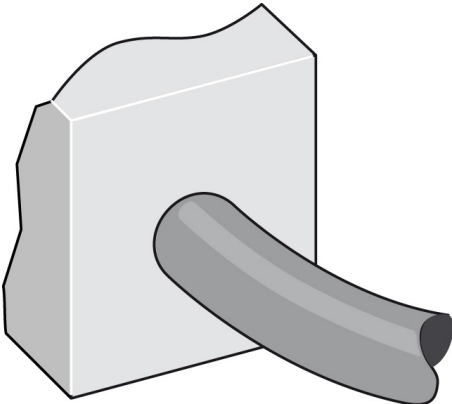


All dimensions in mm (inch)

Connection diagram



Connection type



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