



## Inductive proximity sensors Rectangular housing, IQ12

IQ12-08NNSKW2S



**Model Name** > [IQ12-08NNSKW2S](#)  
**Part No.** > [1055438](#)



**At a glance**

- Tough VISTALTM housing
- SICK-ASIC technology
- 270° status display with extra-bright LED
- Extended sensing range of up to 8 mm
- Hotmelt molding
- Withstands high installation and tightening torque
- IP 68 enclosure rating

**Your benefits**

- Best mechanical and electronic stability for extra-long service life
- Highest levels of process reliability for your application
- Long service life that reduce maintenance costs thanks to SICK's ASIC technology and rugged VISTALTM housing
- Precise detection and high sensor accuracy enable fast handling and assembly processes
- Space-saving integration in every application
- Increased levels of protection against shock and vibration reduce maintenance costs
- Quick viewing of sensor status from any position in the room reduces mounting time and commissioning
- Safe, fast mounting without any need for readjustment saves installation time and maintenance costs



**Features**

|                           |                              |
|---------------------------|------------------------------|
| Design:                   | Rectangular                  |
| Dimensions (W x H x D):   | 12 mm x 26 mm x 40 mm        |
| Sensing range Sn:         | 8 mm                         |
| Assured sensing range Sa: | 6.48 mm                      |
| Installation type:        | Non-flush                    |
| Switching frequency:      | 2,000 Hz                     |
| Output type:              | NPN                          |
| Output function:          | NO                           |
| Electrical wiring:        | DC 3-wire                    |
| Enclosure rating:         | IP 67 <sup>1)</sup><br>IP 68 |
| Connection type:          | Cable, 3-wire, 2 m           |

1) According to EN 60529

## Mechanics/electronics

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|                                 |  |
|---------------------------------|--|
| Supply voltage:                 | 10 V DC ... 30 V DC                    |
| Ripple:                         | $\leq 10\%$ <sup>1)</sup>              |
| Voltage drop:                   | $\leq 3\text{ V}$ <sup>2)</sup>        |
| Power consumption:              | $\leq 20\text{ mA}$ <sup>3)</sup>      |
| Time delay before availability: | $\leq 100\text{ ms}$                   |
| Hysteresis:                     | 5 % ... 15 %                           |
| Repeatability:                  | $\leq 2\%$ <sup>4)</sup> <sup>5)</sup> |
| Temperature drift (of Sr):      | $\pm 10\%$                             |
| EMC:                            | According to EN 60947-5-2              |
| Output current $I_a$ :          | $\leq 200\text{ mA}$                   |
| Cable material:                 | PVC                                    |
| Conductor cross-section:        | 0.25 mm <sup>2</sup>                   |
| Cable diameter:                 | $\varnothing 3.7\text{ mm}$            |
| 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 ... +75 °C                      |
| Sensing face material:          | Plastic, VISTAL                        |
| Tightening torque, max.:        | $\leq 1\text{ Nm}$                     |
| Housing material:               | Plastic, VISTAL                        |

1) Of  $V_S$  <sup>2)</sup> At  $I_a$  max <sup>3)</sup> Without load <sup>4)</sup>  $U_b$  and  $T_a$  constant <sup>5)</sup> Of Sr

## Reduction factors

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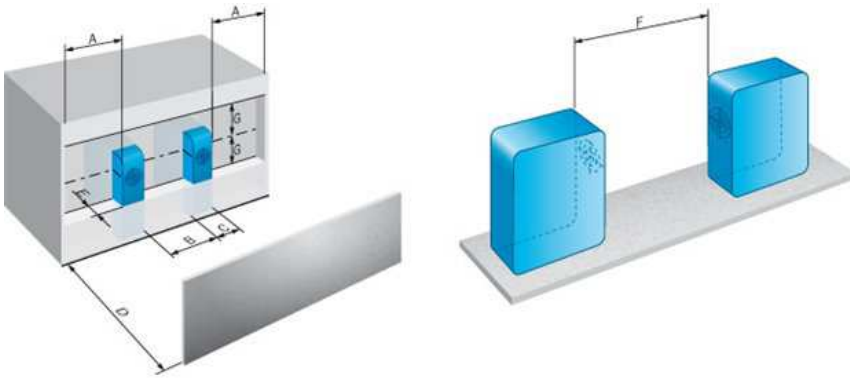
|                             |  |
|-----------------------------|--|
| Note:                       | The values are reference values which may vary |
| Stainless steel (V2A, 304): | 0.7  |
| Copper (Cu):                | 0.4  |
| Aluminum (Al):              | 0.5  |
| Brass (Br):                 | 0.5  |

## Installation note

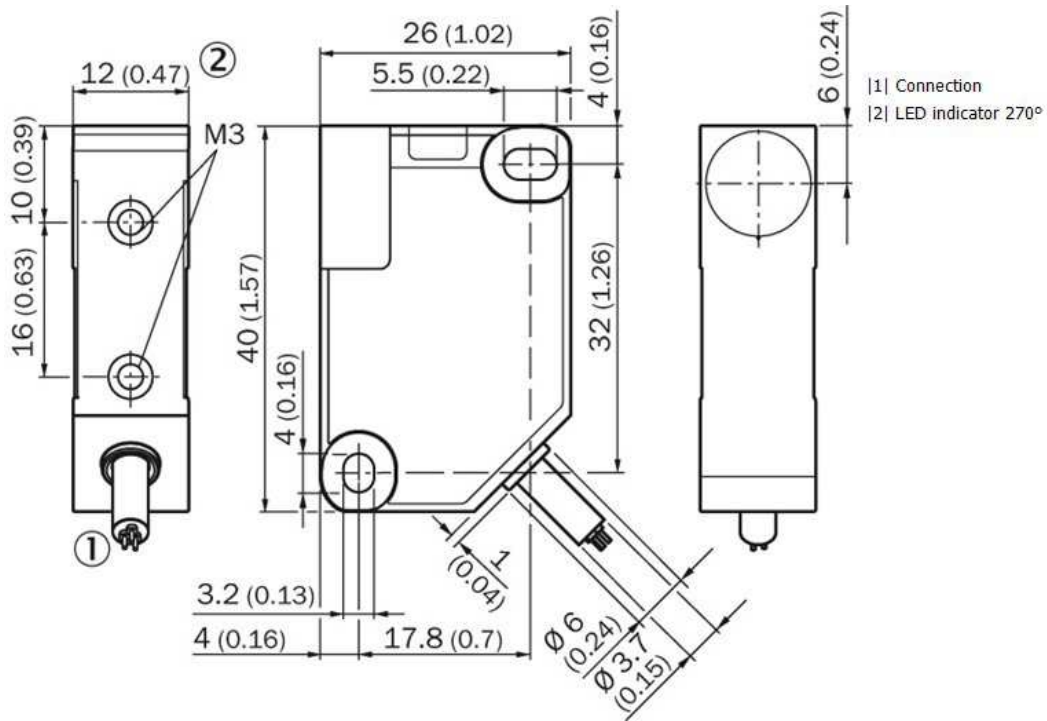
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|         |                                       |
|---------|---------------------------------------|
| A:      | 10 mm                                 |
| B:      | 36 mm                                 |
| C:      | 12 mm                                 |
| D:      | 24 mm                                 |
| E:      | 16 mm                                 |
| F:      | 64 mm                                 |
| G:      | 16 mm                                 |
| Remark: | Associated graphic see "Installation" |

**Installation note**



**Dimensional drawing**



Connection diagram

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