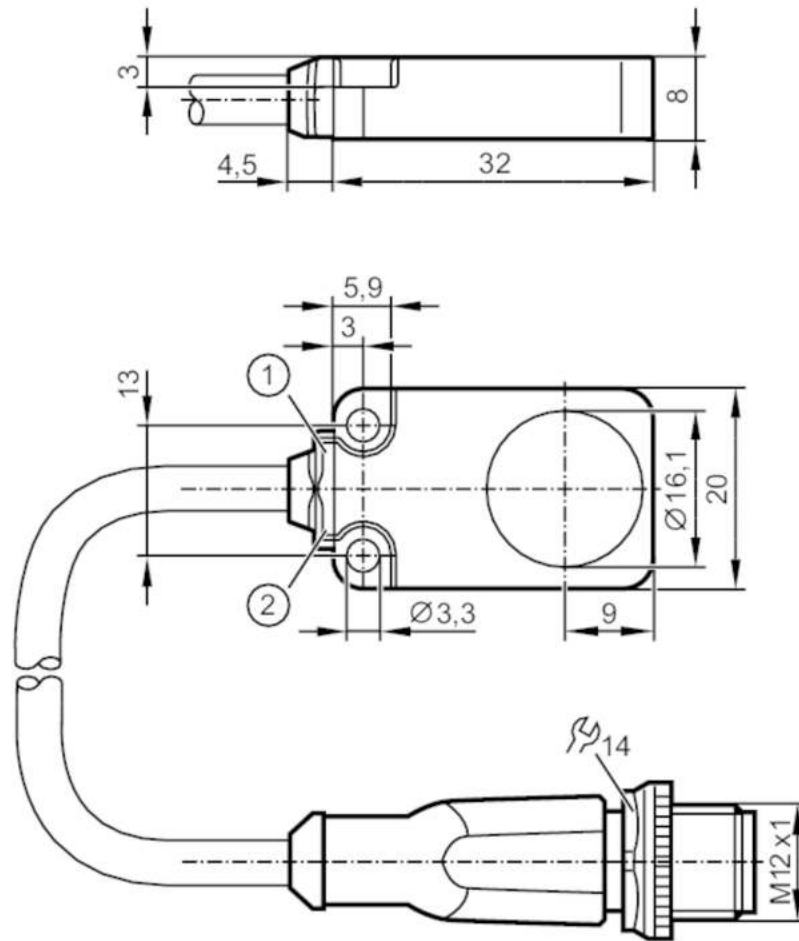


# IQ2002



## Inductive sensor

IQ23008BBPKG/0.3M/PUR/US



- 1 LED yellow
- 2 LED green



### Product characteristics

|                    |               |
|--------------------|---------------|
| Electrical design  | PNP           |
| Output function    | normally open |
| Sensing range [mm] | 8             |
| Housing            | rectangular   |
| Dimensions [mm]    | 20 x 8 x 32   |

### Application

|                 |                         |
|-----------------|-------------------------|
| Special feature | Increased sensing range |
|-----------------|-------------------------|

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 10       |
| Protection class            | III        |
| Reverse polarity protection | yes        |

### Outputs

|                   |               |
|-------------------|---------------|
| Electrical design | PNP           |
| Output function   | normally open |

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|   |      |     |
|---|------|-----|
| Max. voltage drop switching output DC           | [V]  | 2.5 |
| Permanent current rating of switching output DC | [mA] | 100 |
| Switching frequency DC                          | [Hz] | 400 |
| Short-circuit protection                        |      | yes |
| Overload protection                             |      | yes |

| Detection zone          |      |          |
|-------------------------|------|----------|
| Sensing range           | [mm] | 8        |
| Real sensing range Sr   | [mm] | 8 ± 10 % |
| Operating distance      | [mm] | 0...6.48 |
| Increased sensing range |      | yes      |

| Accuracy / deviations |           |   |
|-----------------------|-----------|---|
| Correction factor     |           | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3 |
| Hysteresis            | [% of Sr] | 1...15  |
| Switch point drift    | [% of Sr] | -10...10  |

| Operating conditions |      |                            |
|----------------------|------|----------------------------|
| Ambient temperature  | [°C] | -40...85                   |
| Protection           |      | IP 65; IP 66; IP 67; IP 68 |

| Tests / approvals           |                           |  |
|-----------------------------|---------------------------|--|
| EMC                         | EN 61000-4-2 ESD          | 4 kV CD / 8 kV AD  |
|                             | EN 61000-4-3 HF radiated  | 10 V/m   |
|                             | EN 61000-4-4 Burst        | 2 kV   |
|                             | EN 61000-4-6 HF conducted | 10 V   |
|                             | EN 55011                  | class B  |
| Vibration resistance        | EN 60068-2-6 Fc           | 20 g (10...3000 Hz) / 50 sweep cycles, 1 octave per minute, in 3 axes            |
| Shock resistance            | EN 60068-2-27 Ea          | 100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes |
| Continuous shock resistance | EN 60068-2-27             | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes          |
| Fast temperature change     | EN 60068-2-14 Na          | TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 10 s 50 cycles                        |
| MTTF                        | [years]                   | 1688   |
| UL approval                 | Ta                        | -25...70 °C  |
|                             | Enclosure type            | Type 1   |
|                             | power supply              | Limited Voltage/Current  |
|                             | UL Approval no.           | A016   |
|                             | File number UL            | E174191  |

| Mechanical data |      |   |
|-----------------|------|---|
| Weight          | [g]  | 42.7  |
| Housing         |      | rectangular   |
| Mounting        |      | flush mountable   |
| Dimensions      | [mm] | 20 x 8 x 32   |
| Materials       |      | diecast zinc special coating; sensing face: PBT orange; LED window: TPU; potting: PUR |

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### Displays / operating elements

|         |                   |                 |
|---------|-------------------|-----------------|
| Display | Display operation | 1 x LED, green  |
|         | switching status  | 1 x LED, yellow |

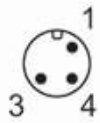
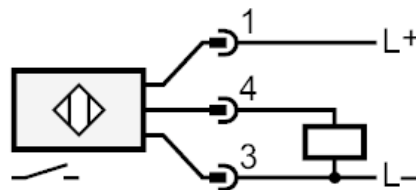
### Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

### Electrical connection

Cable: 0.3 m, PUR, Ø 4.9 mm; 3 x 0.34 mm<sup>2</sup>

### Connection



### Electrical connection - plug

Connector: 1 x M12