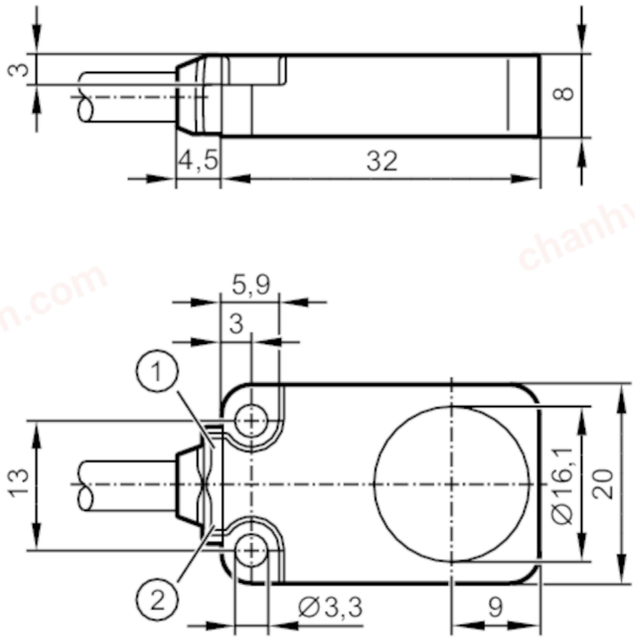
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# IQ2008

## Inductive sensor with IO-Link

IQ23007BFRKG/IO/2M/PUR




1 LED green
2 LED yellow

| | | |
|---|---|---|
| **Product characteristics** | | |
| Electrical design | | PNP/NPN; (parameterisable) |
| Output function | | normally open / normally closed; (parameterisable) |
| Communication interface | | IO-Link |
| Housing | | rectangular |
| Dimensions | [mm] | 20 x 8 x 32 |
| **Application** | | |
| Special feature | | Drag chain suitability |
| **Electrical data** | | |
| Operating voltage | [V] | 10...30 DC |
| Current consumption | [mA] | < 30 |
| Protection class | | III |
| Reverse polarity protection | | yes |
| **Outputs** | | |
| Electrical design | | PNP/NPN; (parameterisable) |
| Output function | | normally open / normally closed; (parameterisable) |
| Max. voltage drop switching output DC | [V] | 2.5 |
| Permanent current rating of switching output DC | [mA] | 100 |
| Switching frequency DC | [Hz] | 300 |
| Short-circuit protection | | yes |
| Overload protection | | yes |

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## Inductive sensor with IO-Link

IQ23007BFRKG/IO/2M/PUR

| | | | |
|---|---|---|---|
| **Detection zone** | | | |
| Switch point IO-Link | [mm] | 1.4...7; (parameterisable) | |
| Measuring range IO-Link | [mm] | 0.75...7.5 | |
| **Accuracy / deviations** | | | |
| Correction factor | | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3 | |
| Hysteresis | [% of Sr] | 3...15 | |
| Note on hysteresis | | parameterisable | |
| Linearity error IO-Link | [%] | ± 2; (of the final value of the measuring range) | |
| Repeatability IO-Link | [%] | ± 1; (of the final value of the measuring range) | |
| Temperature coefficient | [%/K vom MEW] | ± 0,6; (-25...70 °C: ± 0,3) | |
| Temperature drift | | ± 10 %; (of the final value of the measuring range) | |
| **Interfaces** | | | |
| Communication interface | | IO-Link | |
| Transmission type | | COM2 (38,4 kBaud) | |
| IO-Link revision | | 1.1 | |
| SDCI standard | | IEC 61131-9 CDV | |
| Profiles | | Smart Sensor: Identification and diagnosis; Multi-channel, two setpoint switching sensor, type 0 Generic Profiled Sensor; Teach Channel | |
| SIO mode | | yes | |
| Required master port type | | A | |
| Min. process cycle time | [ms] | 3.2 | |
| IO-Link process data (cyclical) | | function | bit length |
| | | process value | 16 |
| | | device status | 4 |
| | | binary switching information | 2 |
| IO-Link functions (acyclical) | | application specific tag; operating hours counter | |
| Supported DeviceIDs | | Type of operation | DeviceID |
| | | Default | 1106 |
| Note | | For further information please see the IODD PDF file under "Downloads" | |
| **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 |

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# IQ2008

## Inductive sensor with IO-Link

IQ23007BFRKG/IO/2M/PUR

| | | | |
|---|---|---|---|
| MTTF | [years] | 787 | |
| Embedded software included | | yes | |
| UL approval | | Ta | -25...70 °C |
| | | Enclosure type | Type 1 |
| | | power supply | Limited Voltage/Current |
| | | UL Approval no. | A015 |
| | | File number UL | E174191 |

### Mechanical data

| | | | |
|---|---|---|---|
| Weight | [g] | 79.2 | |
| 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 | |
| Drag chain suitability | | yes | |
| Drag chain suitability | | bending radius for flexible use | min. 10 x cable diameter |
| | | bending cycles | > 5 Mio. |

### Displays / operating elements

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

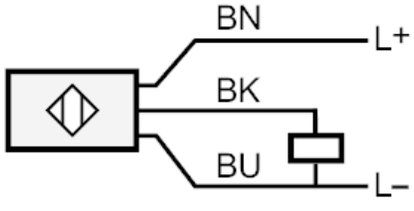
### Remarks

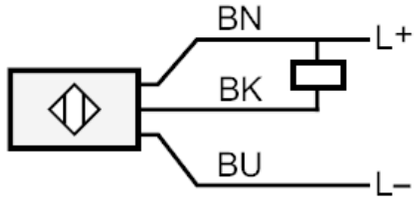
| | |
|---|---|
| Pack quantity | 1 pcs. |

### Electrical connection

Cable: 2 m, PUR, Ø 4.9 mm; 3 x 0.34 mm²

Connection




| | |
|---|---|
| BN | brown |
| BU | blue |
| BK | black OUT / IO-Link |