



## Inductive sensor

IQ23008BBPKG/K1/SC/0.3M/PUR/US



- 1 LED green
- 2 LED yellow



### 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                   | Drag chain suitability; Increased sensing range; Magnetic-field immune |
| Application                       | Use in welding applications                                            |
| Magnetic-field immune             | yes                                                                    |
| Max. magnetic field immunity [mT] | 300                                                                    |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 20       |
| Protection class            | III        |
| Reverse polarity protection | yes        |

### Outputs

|                                                      |               |
|------------------------------------------------------|---------------|
| Electrical design                                    | PNP           |
| Output function                                      | normally open |
| Max. voltage drop switching output DC [V]            | 2.5           |
| Permanent current rating of switching output DC [mA] | 100           |
| Switching frequency DC [Hz]                          | 2000          |



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|                                      |                                 |                                                                                   |
|--------------------------------------|---------------------------------|-----------------------------------------------------------------------------------|
| Short-circuit protection             |                                 | yes                                                                               |
| Overload protection                  |                                 | yes                                                                               |
| <b>Detection zone</b>                |                                 |                                                                                   |
| Sensing range                        | [mm]                            | 8                                                                                 |
| Real sensing range Sr                | [mm]                            | 8 ± 10 %                                                                          |
| Operating distance                   | [mm]                            | 0...6.48                                                                          |
| Increased sensing range              |                                 | yes                                                                               |
| <b>Accuracy / deviations</b>         |                                 |                                                                                   |
| Correction factor                    |                                 | steel: 1 / stainless steel: 1 / brass: 1 / aluminium: 1 / copper: 1               |
| Hysteresis                           | [% of Sr]                       | 3...15                                                                            |
| Switch point drift                   | [% of Sr]                       | -10...10                                                                          |
| <b>Operating conditions</b>          |                                 |                                                                                   |
| Ambient temperature                  | [°C]                            | -40...85                                                                          |
| Protection                           |                                 | IP 65; IP 66; IP 67; IP 68                                                        |
| <b>Tests / approvals</b>             |                                 |                                                                                   |
| 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]                         | 1084                                                                              |
| UL approval                          | Ta                              | -40...60 °C                                                                       |
|                                      | Enclosure type                  | Type 1                                                                            |
|                                      | power supply                    | Limited Voltage/Current                                                           |
|                                      | UL Approval no.                 | A020                                                                              |
|                                      | File number UL                  | E174191                                                                           |
| <b>Mechanical data</b>               |                                 |                                                                                   |
| Weight                               | [g]                             | 40.9                                                                              |
| Housing                              |                                 | rectangular                                                                       |
| Mounting                             |                                 | flush mountable                                                                   |
| Dimensions                           | [mm]                            | 20 x 8 x 32                                                                       |
| Materials                            |                                 | diecast zinc anti-spatter; sensing face: LCP black; 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.                                                                          |
| <b>Displays / operating elements</b> |                                 |                                                                                   |
| Display                              | Display operation               | 1 x LED, green                                                                    |
|                                      | switching status                | 1 x LED, yellow                                                                   |

# IQW201



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### Remarks

Pack quantity

1 pcs.

### Electrical connection

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

Connector: 1 x M12; coding: A



### Connection

