



## Inductive sensor

IS-3002-BPKG



## Electrical data

|                             |      |                                         |
|-----------------------------|------|-----------------------------------------|
| Operating voltage           | [V]  | 10...30 DC; ("supply class 2" to cULus) |
| Current consumption         | [mA] | < 15                                    |
| Protection class            |      | III                                     |
| Reverse polarity protection |      | yes                                     |

## Outputs

|                                                 |      |               |
|-------------------------------------------------|------|---------------|
| Electrical design                               |      | PNP           |
| Output function                                 |      | normally open |
| Max. voltage drop switching output DC           | [V]  | 2.5           |
| Max. leakage current                            | [mA] | 0.5           |
| Permanent current rating of switching output DC | [mA] | 200           |
| Short-time current rating of switching output   | [mA] | 200           |
| Switching frequency DC                          | [Hz] | 800           |
| Short-circuit protection                        |      | yes           |
| Overload protection                             |      | yes           |

## Detection zone

|                             |      |               |
|-----------------------------|------|---------------|
| Sensing range               | [mm] | 2             |
| Real sensing range Sr       | [mm] | $2 \pm 10 \%$ |
| Operating distance          | [mm] | 0...1.6       |
| Safe switching-off distance | [mm] | 1.62          |

## Accuracy / deviations

|                    |           |                                                                             |
|--------------------|-----------|-----------------------------------------------------------------------------|
| Correction factor  |           | steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2 |
| Hysteresis         | [% of Sr] | 1...15                                                                      |
| Switch point drift | [% of Sr] | -10...10                                                                    |

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| Operating conditions          |                           |                      |
|-------------------------------|---------------------------|----------------------|
| Ambient temperature           | [°C]                      | -25...80             |
| Protection                    |                           | IP 67                |
| Tests / approvals             |                           |                      |
| EMC                           | EN 61000-4-2 ESD          | -- CD / 15 kV AD     |
|                               | EN 61000-4-3 HF radiated  | 10 V/m               |
|                               | EN 61000-4-4 Burst        | 2 kV                 |
|                               | EN 61000-4-5 Surge        | 0,5 kV               |
|                               | EN 61000-4-6 HF conducted | 10 V                 |
|                               | EN 55011                  | class B              |
| Vibration resistance          | EN 60947-5-2              |                      |
| Shock resistance              | EN 60947-5-2              |                      |
| MTTF                          | [years]                   | 3004                 |
| UL approval                   | Ta                        | -25...80 °C          |
|                               | Enclosure type            | Type 1               |
|                               | voltage supply            | Class 2              |
|                               | File number UL            | E174191              |
| Mechanical data               |                           |                      |
| Weight                        | [g]                       | 43                   |
| Housing                       |                           | rectangular          |
| Mounting                      |                           | flush mountable      |
| Dimensions                    | [mm]                      | 28 x 10 x 16         |
| Materials                     |                           | housing: PBT         |
| Tightening torque             | [Nm]                      | < 0.5; (with washer) |
| Displays / operating elements |                           |                      |
| Display                       | switching status          | 1 x LED, yellow      |
| Remarks                       |                           |                      |
| Pack quantity                 |                           | 1 pcs.               |

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### Electrical connection

Cable: 2 m, PVC, Ø 3.5 mm; 3 x 0.14 mm<sup>2</sup>

### Connection



Core colours :

|      |       |
|------|-------|
| BN = | brown |
| BU = | blue  |
| BK = | black |