

## Inductive sensor

IEB3002BBPKG/AS



## Product characteristics

|                    |                 |
|--------------------|-----------------|
| Electrical design  | PNP             |
| Output function    | normally open   |
| Sensing range [mm] | 2               |
| Housing            | threaded type   |
| Dimensions [mm]    | M8 x 1 / L = 50 |

## 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 |
| Max. voltage drop switching output DC [V]            | 2.5           |
| Permanent current rating of switching output DC [mA] | 100           |
| Switching frequency DC [Hz]                          | 1300          |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

## Detection zone

|                               |               |
|-------------------------------|---------------|
| Sensing range [mm]            | 2             |
| Real sensing range $S_r$ [mm] | $2 \pm 10 \%$ |
| Operating distance [mm]       | 0...1.6       |
| 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 $S_r$ ] | 1...20                                                                      |
| Switch point drift [mm]  | -10...10                                                                    |

# IE5287



## Inductive sensor

IEB3002BBPKG/AS

| Operating conditions          |                           |                                                                                                                |
|-------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------|
| Ambient temperature           | [°C]                      | -25...70                                                                                                       |
| Protection                    |                           | IP 65; IP 67; (with ifm socket duly screwed on)                                                                |
| 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                                                                                                        |
| MTTF                          | [years]                   | 1379                                                                                                           |
| Embedded software included    |                           | yes                                                                                                            |
| UL approval                   | Ta                        | -25...70 °C                                                                                                    |
|                               | Enclosure type            | Type 1                                                                                                         |
|                               | power supply              | Limited Voltage/Current                                                                                        |
|                               | UL Approval no.           | A017                                                                                                           |
|                               | File number UL            | E174191                                                                                                        |
| Mechanical data               |                           |                                                                                                                |
| Weight                        | [g]                       | 16                                                                                                             |
| Housing                       |                           | threaded type                                                                                                  |
| Mounting                      |                           | flush mountable                                                                                                |
| Dimensions                    | [mm]                      | M8 x 1 / L = 50                                                                                                |
| Thread designation            |                           | M8 x 1                                                                                                         |
| Materials                     |                           | brass white bronze coated; sensing face: LCP orange;<br>LED window: PPSU; lock nuts: brass white bronze coated |
| Tightening torque             | [Nm]                      | A = 5 mm: 1,5 Nm; B = 2 Nm                                                                                     |
| Displays / operating elements |                           |                                                                                                                |
| Display                       | switching status          | 4 LED, yellow                                                                                                  |
| Accessories                   |                           |                                                                                                                |
| Items supplied                |                           | lock nuts: 2                                                                                                   |
| Remarks                       |                           |                                                                                                                |
| Pack quantity                 |                           | 1 pcs.                                                                                                         |
| Electrical connection - plug  |                           |                                                                                                                |
| Connector: 1 x M8; coding: A  |                           |                                                                                                                |
|                               |                           |                                                                                                                |

## Inductive sensor

IEB3002BBPKG/AS

### Connection



### Diagrams and graphs

#### Installation

