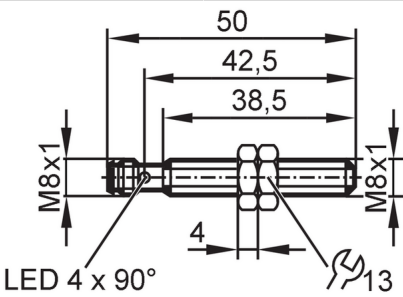




Inductive full-metal sensor

IEB3002BBPKG/AM/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                                      | gold-plated contacts; Increased sensing range                              |        |
| Application                                          | Industrial applications; Oils and coolants                                 |        |
| Pressure rating                                      | 50 bar                                                                     | 10 MPa |
| Note on pressure rating                              | sensing face                                                               |        |
| 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]                          | 100                                                                        |        |
| Short-circuit protection                             | yes                                                                        |        |
| Overload protection                                  | yes                                                                        |        |
| Monitoring range                                     |                                                                            |        |
| Sensing range [mm]                                   | 2                                                                          |        |
| Real sensing range Sr [mm]                           | 2 ± 10 %                                                                   |        |
| Operating distance [mm]                              | 0...1.6                                                                    |        |
| Increased sensing range                              | yes                                                                        |        |
| Accuracy / deviations                                |                                                                            |        |
| Correction factor                                    | steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminum: 0.6 / copper: 0.5 |        |
| Hysteresis [% of Sr]                                 | 1...20                                                                     |        |



## Inductive full-metal sensor

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|                    |      |          |
|--------------------|------|----------|
| Switch-point drift | [mm] | -10...10 |
|--------------------|------|----------|

## Operating conditions

|                     |      |          |
|---------------------|------|----------|
| Ambient temperature | [°C] | -25...70 |
| Protection          |      | IP 67    |

## 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                 |
| Impact resistance          |                           | 1 J                     |
| MTTF                       | [years]                   | 1446                    |
| Embedded software included |                           | yes                     |
| UL approval                | Ta                        | -25...70 °C             |
|                            | Enclosure type            | Type 1                  |
|                            | voltage supply            | Limited Voltage/Current |
|                            | UL approval number        | A017                    |
|                            | File number UL            | E174191                 |

## Mechanical data

|                    |      |                                                                                                                                              |
|--------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Weight             | [g]  | 18.1                                                                                                                                         |
| Housing            |      | Threaded type                                                                                                                                |
| Mounting           |      | flush mountable                                                                                                                              |
| Dimensions         | [mm] | M8 x 1 / L = 50                                                                                                                              |
| Thread designation |      | M8 x 1                                                                                                                                       |
| Material           |      | stainless steel (1.4404 / 316L); sensing face: stainless steel (1.4404 / 316L); LED window: PPSU; lock nuts: stainless steel (1.4404 / 316L) |
| Tightening torque  | [Nm] | < 5                                                                                                                                          |

## 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; Contacts: 3, gold-plated



# IEC201



## Inductive full-metal sensor

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### Connection

