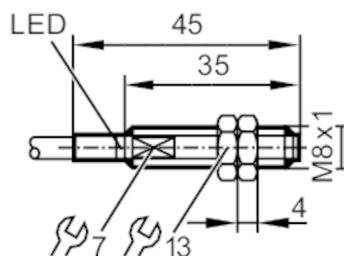


## Inductive full-metal sensor

IEB2002BARKG/AM/SC/5,0M/2LED



## Product characteristics

|                    |                 |
|--------------------|-----------------|
| Electrical design  | PNP/NPN         |
| Output function    | normally open   |
| Sensing range [mm] | 2               |
| Housing            | threaded type   |
| Dimensions [mm]    | M8 x 1 / L = 45 |

## Application

|                         |                                                                  |
|-------------------------|------------------------------------------------------------------|
| Special feature         | Increased sensing range; Full-metal housing; Optical setting aid |
| Application             | Use in welding applications                                      |
| Pressure rating [bar]   | 50                                                               |
| Note on pressure rating | sensing face                                                     |

## Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...36 DC |
| Protection class            | III        |
| Reverse polarity protection | yes        |

## Outputs

|                                                      |               |
|------------------------------------------------------|---------------|
| Electrical design                                    | PNP/NPN       |
| Output function                                      | normally open |
| Max. voltage drop switching output DC [V]            | 2.5           |
| Minimum load current [mA]                            | 2             |
| Max. leakage current [mA]                            | 0.75          |
| Permanent current rating of switching output DC [mA] | 100           |
| Switching frequency DC [Hz]                          | 150           |
| Short-circuit protection                             | yes           |
| Type of short-circuit protection                     | pulsed        |
| Overload protection                                  | yes           |

## Detection zone

|                         |         |
|-------------------------|---------|
| Sensing range [mm]      | 2       |
| Operating distance [mm] | 0...1.6 |
| Increased sensing range | yes     |



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| Accuracy / deviations         |           |                                                                                                                                                                      |                         |
|-------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Correction factor             |           | steel: 1 / stainless steel: 0.6 / brass: 0.4 / aluminium: 0.3 / copper: 0.2                                                                                          |                         |
| Hysteresis                    | [% of Sr] | 1...20                                                                                                                                                               |                         |
| 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]                                                                                                                                                              | 1384                    |
| UL approval                   |           | Ta                                                                                                                                                                   | 0...40 °C               |
|                               |           | Enclosure type                                                                                                                                                       | Type 1                  |
|                               |           | power supply                                                                                                                                                         | Limited Voltage/Current |
|                               |           | File number UL                                                                                                                                                       | E174191                 |
| Mechanical data               |           |                                                                                                                                                                      |                         |
| Weight                        |           | [g]                                                                                                                                                                  | 108.6                   |
| Housing                       |           |                                                                                                                                                                      | threaded type           |
| Mounting                      |           |                                                                                                                                                                      | flush mountable         |
| Dimensions                    |           | [mm]                                                                                                                                                                 | M8 x 1 / L = 45         |
| Thread designation            |           |                                                                                                                                                                      | M8 x 1                  |
| Materials                     |           | housing: stainless steel (316L/1.4404) anti-spatter; sensing face: stainless steel (316L/1.4404) anti-spatter; lock nuts: stainless steel (316L/1.4404) anti-spatter |                         |
| Full-metal housing            |           |                                                                                                                                                                      | yes                     |
| Displays / operating elements |           |                                                                                                                                                                      |                         |
| Display                       |           | switching status                                                                                                                                                     | 1 x LED, green          |
|                               |           | setting aid                                                                                                                                                          | 1 x LED, red            |
| Optical setting aid           |           |                                                                                                                                                                      | yes                     |
| Accessories                   |           |                                                                                                                                                                      |                         |
| Items supplied                |           |                                                                                                                                                                      | lock nuts: 2            |
| Remarks                       |           |                                                                                                                                                                      |                         |
| Pack quantity                 |           |                                                                                                                                                                      | 1 pcs.                  |

# IER205



## Inductive full-metal sensor

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### Electrical connection

Cable: 5 m, PUR; 2 x 0.34 mm<sup>2</sup>

### Connection



|      |                |
|------|----------------|
| BN = | Core colours : |
| BU = | brown          |
|      | blue           |