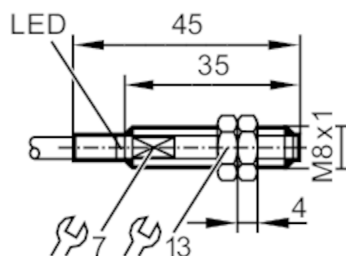


# IER205



## 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

|                         |                                                                  |
|-------------------------|------------------------------------------------------------------|
| System                  | Increased sensing range; Full-metal housing; optical setting aid |
| Application             | Inductive sensors for 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                     | yes (non-latching) |
| Overload protection                                  | yes                |

### Monitoring range

|                         |         |
|-------------------------|---------|
| 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 / aluminum: 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                                                                                                                                                                  |
|                               | voltage 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                                                                                                                                                                  |
| Material                      |                                                                            | housing: stainless steel (1.4404 / 316L) weld coated; sensing face: stainless steel (1.4404 / 316L) weld coated; lock nuts: stainless steel (1.4404 / 316L) weld coated |
| 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



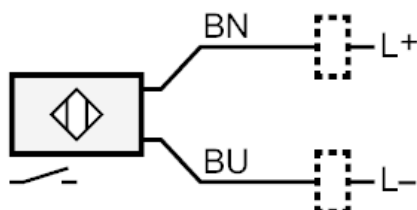
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### Electrical connection

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

### Connection



BN = Core colors : brown  
BU = blue