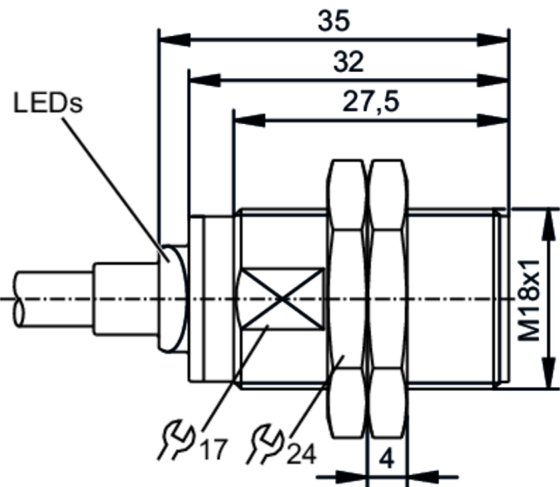


# IGR203



## Inductive full-metal sensor

IGB2006BARKG/AM/SC/0,3M/US/2LE



| Product characteristics                         |       |                                                                                        |
|-------------------------------------------------|-------|----------------------------------------------------------------------------------------|
| Electrical design                               |       | PNP/NPN                                                                                |
| Output function                                 |       | normally open                                                                          |
| Sensing range                                   | [mm]  | 6                                                                                      |
| Housing                                         |       | Threaded type                                                                          |
| Dimensions                                      | [mm]  | M18 x 1 / L = 35                                                                       |
| Application                                     |       |                                                                                        |
| System                                          |       | gold-plated contacts; Increased sensing range; Full-metal housing; optical setting aid |
| Application                                     |       | Inductive sensors for welding applications                                             |
| Pressure rating                                 | [bar] | 20                                                                                     |
| Note on pressure rating                         |       | sensing face                                                                           |
| Electrical data                                 |       |                                                                                        |
| Operating voltage                               | [V]   | 10...30 DC                                                                             |
| Protection class                                |       | III                                                                                    |
| Reverse polarity protection                     |       | yes                                                                                    |
| Outputs                                         |       |                                                                                        |
| Electrical design                               |       | PNP/NPN                                                                                |
| Output function                                 |       | normally open                                                                          |
| Max. voltage drop switching output DC           | [V]   | 3.2                                                                                    |
| Minimum load current                            | [mA]  | 2                                                                                      |
| Max. leakage current                            | [mA]  | 0.6                                                                                    |
| Permanent current rating of switching output DC | [mA]  | 100                                                                                    |
| Switching frequency DC                          | [Hz]  | 50                                                                                     |
| Short-circuit protection                        |       | yes                                                                                    |
| Type of short-circuit protection                |       | yes (non-latching)                                                                     |
| Overload protection                             |       | yes                                                                                    |

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| Monitoring range              |                           |                                                                                                                                                                                          |
|-------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sensing range                 | [mm]                      | 6                                                                                                                                                                                        |
| Operating distance            | [mm]                      | 0...4.86                                                                                                                                                                                 |
| Increased sensing range       |                           | yes                                                                                                                                                                                      |
| Accuracy / deviations         |                           |                                                                                                                                                                                          |
| Correction factor             |                           | steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminum: 0.5 / copper: 0.2                                                                                                               |
| Hysteresis                    | [% of Sr]                 | 1...20                                                                                                                                                                                   |
| Operating conditions          |                           |                                                                                                                                                                                          |
| Ambient temperature           | [°C]                      | -40...85                                                                                                                                                                                 |
| Protection                    |                           | IP 65; IP 66; IP 67; IP 68; IP 69K                                                                                                                                                       |
| 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 emission         | class B                                                                                                                                                                                  |
| Impact resistance             |                           | 1 J                                                                                                                                                                                      |
| MTTF                          | [years]                   | 946                                                                                                                                                                                      |
| UL approval                   | Ta                        | -25...70 °C                                                                                                                                                                              |
|                               | Enclosure type            | Type 1                                                                                                                                                                                   |
|                               | voltage supply            | Limited Voltage/Current                                                                                                                                                                  |
|                               | UL approval number        | A042                                                                                                                                                                                     |
|                               | File number UL            | E174191                                                                                                                                                                                  |
| Mechanical data               |                           |                                                                                                                                                                                          |
| Weight                        | [g]                       | 67.1                                                                                                                                                                                     |
| Housing                       |                           | Threaded type                                                                                                                                                                            |
| Mounting                      |                           | flush mountable                                                                                                                                                                          |
| Dimensions                    | [mm]                      | M18 x 1 / L = 35                                                                                                                                                                         |
| Thread designation            |                           | M18 x 1                                                                                                                                                                                  |
| Material                      |                           | housing: stainless steel (1.4404 / 316L) weld coated; sensing face: stainless steel (1.4404 / 316L) weld coated; cable plug: PEI; lock nuts: stainless steel (1.4404 / 316L) weld coated |
| Tightening torque             | [Nm]                      | 20                                                                                                                                                                                       |
| 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.                                                                                                                                                                                   |

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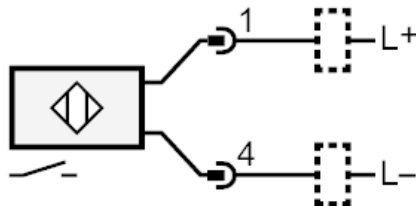
### Electrical connection - plug

Cable: 0.3 m, PVC; 2 x 0.5 mm<sup>2</sup>

Connector: 1 x M12; coding: A; Contacts: gold-plated



### Connection



### Diagrams and graphs

#### Installation

