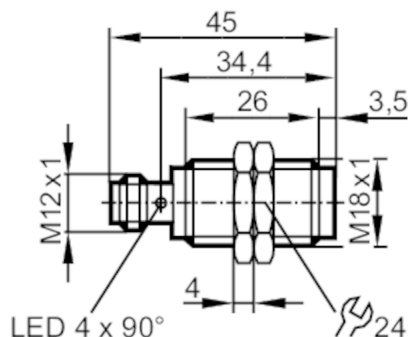




## Inductive full-metal sensor

IGB3010QBPKG/AM/P/US-104



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 10               |
| Dimensions [mm]    | M18 x 1 / L = 45 |

### Application

|                         |                                                                               |
|-------------------------|-------------------------------------------------------------------------------|
| System                  | gold-plated contacts; Increased sensing range                                 |
| Application             | constant cleaning with aggressive cleaning agents; regular cleaning processes |
| Pressure rating         | 100 bar 10 MPa                                                                |
| Note on pressure rating | sensing face                                                                  |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 20       |
| 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]                          | 200           |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

### Monitoring range

|                            |           |
|----------------------------|-----------|
| Sensing range [mm]         | 10        |
| Real sensing range Sr [mm] | 10 ± 10 % |
| Operating distance [mm]    | 0...8.1   |
| Increased sensing range    | yes       |

### Accuracy / deviations

|                   |                                                                          |
|-------------------|--------------------------------------------------------------------------|
| Correction factor | steel: 1 / stainless steel: 1 / brass: 0.4 / aluminum: 0.3 / copper: 0.2 |
|-------------------|--------------------------------------------------------------------------|



## Inductive full-metal sensor

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|                    |           |          |
|--------------------|-----------|----------|
| Hysteresis         | [% of Sr] | 3...15   |
| Switch-point drift | [% of Sr] | -10...10 |

### Operating conditions

|                     |      |                                    |
|---------------------|------|------------------------------------|
| Ambient temperature | [°C] | 0...100                            |
| 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                  | class B                                                                            |
| Impact resistance           |                           | 1 J                                                                                |
| Vibration resistance        | EN 60068-2-6 Fc           | 20 g (10...3000 Hz) / 50 sweep cycles per frequency; 1 octave per minute in 3 axes |
| Shock resistance            | EN 60068-2-27 Ea          | 100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes   |
| Continuous shock resistance | EN 60068-2-27             | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes            |
| Fast temperature changes    | EN 60068-2-14 Nc          | TA = 0°C; TB = 100°C; t1 = 30 min; t2 = < 10 s 50 cycles                           |
| MTTF                        | [years]                   | 1388                                                                               |
| Embedded software included  |                           | yes                                                                                |
| UL approval                 | Ta                        | 0...70 °C                                                                          |
|                             | Enclosure type            | Type 1                                                                             |
|                             | voltage supply            | Limited Voltage/Current                                                            |
|                             | UL approval number        | A012                                                                               |
|                             | File number UL            | E174191                                                                            |

### Mechanical data

|                    |      |                                                                                                                                             |
|--------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Weight             | [g]  | 41                                                                                                                                          |
| Mounting           |      | quasi flush                                                                                                                                 |
| Dimensions         | [mm] | M18 x 1 / L = 45                                                                                                                            |
| Thread designation |      | M18 x 1                                                                                                                                     |
| Material           |      | stainless steel (1.4404 / 316L); sensing face: stainless steel (1.4404 / 316L); LED window: PEI; lock nuts: stainless steel (1.4404 / 316L) |
| Tightening torque  | [Nm] | 50                                                                                                                                          |

### Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | Switching status | 4 x LED, yellow |
|---------|------------------|-----------------|

### Accessories

|                |  |              |
|----------------|--|--------------|
| Items supplied |  | lock nuts: 2 |
|----------------|--|--------------|

### Remarks

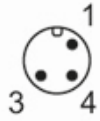
|               |  |        |
|---------------|--|--------|
| Pack quantity |  | 1 pcs. |
|---------------|--|--------|

## Inductive full-metal sensor

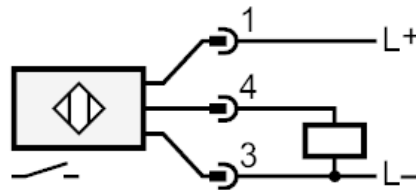
IGB3010QBPKG/AM/P/US-104

### Electrical connection

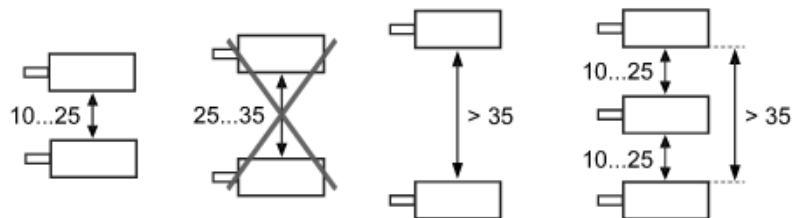
Connector: 1 x M12; coding: A; Contacts: gold-plated



### Connection



### Diagrams and graphs



# IGT261

## Inductive full-metal sensor

IGB3010QBPKG/AM/P/US-104

