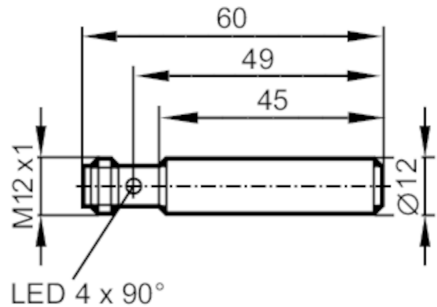


# IFT243



## Inductive full-metal sensor

IFG3003BBPKG/AM/US-104



### Product characteristics

|                    |               |
|--------------------|---------------|
| Electrical design  | PNP           |
| Output function    | normally open |
| Sensing range [mm] | 3             |
| Housing            | cylindrical   |
| Dimensions [mm]    | Ø 12 / L = 60 |

### Application

|                         |                                                                               |
|-------------------------|-------------------------------------------------------------------------------|
| Special feature         | Gold-plated contacts; Increased sensing range; Full-metal housing             |
| Application             | constant cleaning with aggressive cleaning agents; regular cleaning processes |
| Pressure rating [bar]   | 50                                                                            |
| Pressure rating [MPa]   | 5                                                                             |
| 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]                          | 100           |
| Short-circuit protection                             | yes           |
| Type of short-circuit protection                     | pulsed        |
| Overload protection                                  | yes           |

### Detection zone

|                         |         |
|-------------------------|---------|
| Sensing range [mm]      | 3       |
| Operating distance [mm] | 0...2.4 |



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|                         |     |
|-------------------------|-----|
| Increased sensing range | yes |
|-------------------------|-----|

## Accuracy / deviations

|                      |                                                                             |
|----------------------|-----------------------------------------------------------------------------|
| Correction factor    | steel: 1 / stainless steel: 0.6 / brass: 0.7 / aluminium: 0.6 / copper: 0.3 |
| Hysteresis [% of Sr] | 1...20                                                                      |

## Operating conditions

|                          |               |
|--------------------------|---------------|
| Ambient temperature [°C] | 0...100       |
| Protection               | 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]               |                           | 1258                    |
| Embedded software included |                           | yes                     |
| UL approval                | Ta                        | -25...70 °C             |
|                            | Enclosure type            | Type 1                  |
|                            | power supply              | Limited Voltage/Current |
|                            | UL Approval no.           | A012                    |
|                            | File number UL            | E174191                 |

## Mechanical data

|                        |                                                                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight [g]             | 19.645                                                                                                                                         |
| Housing                | cylindrical                                                                                                                                    |
| Mounting               | flush mountable                                                                                                                                |
| Dimensions [mm]        | Ø 12 / L = 60                                                                                                                                  |
| Materials              | housing: stainless steel (316L/1.4404); sensing face: stainless steel (316L/1.4404); LED window: PEI; lock nuts: stainless steel (316L/1.4404) |
| Tightening torque [Nm] | 15                                                                                                                                             |
| Full-metal housing     | yes                                                                                                                                            |

## Displays / operating elements

|         |                  |                     |
|---------|------------------|---------------------|
| Display | switching status | 4 x 90° LED, yellow |
|---------|------------------|---------------------|

## Remarks

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

## Electrical connection



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### Connection



### Electrical connection - plug

Connector: 1 x M12; Contacts: gold-plated