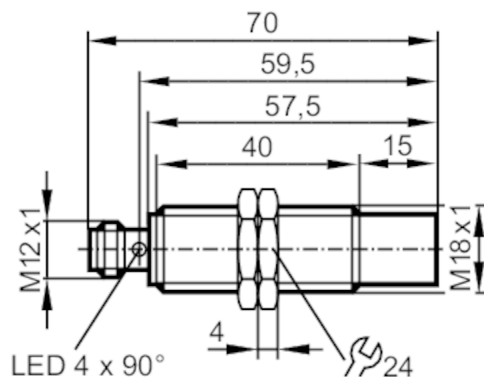




## Inductive full-metal sensor

IGK3012-ANKG/AM/P/US-104



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | NPN              |
| Output function    | normally open    |
| Sensing range [mm] | 12               |
| Housing            | threaded type    |
| Dimensions [mm]    | M18 x 1 / L = 70 |

### 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]   | 100                                                                           |
| Note on pressure rating | sensing face                                                                  |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 25       |
| Protection class            | III        |
| Reverse polarity protection | yes        |

### Outputs

|                                                      |               |
|------------------------------------------------------|---------------|
| Electrical design                                    | NPN           |
| 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]                          | 250           |
| Short-circuit protection                             | yes           |
| Type of short-circuit protection                     | pulsed        |
| Overload protection                                  | yes           |

### Detection zone

|                            |           |
|----------------------------|-----------|
| Sensing range [mm]         | 12        |
| Real sensing range Sr [mm] | 12 ± 10 % |



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|                                      |                           |                                                                                                                               |
|--------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Operating distance                   | [mm]                      | 0...9.7                                                                                                                       |
| Increased sensing range              |                           | yes                                                                                                                           |
| <b>Accuracy / deviations</b>         |                           |                                                                                                                               |
| Correction factor                    |                           | steel: 1 / stainless steel: 1 / brass: 0.9 / aluminium: 0.8 / copper: 0.5                                                     |
| Hysteresis                           | [% of Sr]                 | 1...20                                                                                                                        |
| Switch point drift                   | [% of Sr]                 | -10...10                                                                                                                      |
| <b>Operating conditions</b>          |                           |                                                                                                                               |
| Ambient temperature                  | [°C]                      | 0...100                                                                                                                       |
| Protection                           |                           | IP 65; IP 67; IP 68; IP 69K                                                                                                   |
| <b>Tests / approvals</b>             |                           |                                                                                                                               |
| 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                    | EN 60068-2-75 Ehc         | 1 J                                                                                                                           |
| MTTF                                 | [years]                   | 1262                                                                                                                          |
| Embedded software included           |                           | yes                                                                                                                           |
| UL approval                          | Ta                        | 0...70 °C                                                                                                                     |
|                                      | Enclosure type            | Type 1                                                                                                                        |
|                                      | power supply              | Limited Voltage/Current                                                                                                       |
|                                      | UL Approval no.           | A012                                                                                                                          |
|                                      | File number UL            | E174191                                                                                                                       |
| <b>Mechanical data</b>               |                           |                                                                                                                               |
| Weight                               | [g]                       | 56                                                                                                                            |
| Housing                              |                           | threaded type                                                                                                                 |
| Mounting                             |                           | non-flush mountable                                                                                                           |
| Dimensions                           | [mm]                      | M18 x 1 / L = 70                                                                                                              |
| Thread designation                   |                           | M18 x 1                                                                                                                       |
| Materials                            |                           | housing: stainless steel (316L/1.4404); sensing face: stainless steel (316L/1.4404); lock nuts: stainless steel (316L/1.4404) |
| Tightening torque                    | [Nm]                      | 50                                                                                                                            |
| Full-metal housing                   |                           | yes                                                                                                                           |
| <b>Displays / operating elements</b> |                           |                                                                                                                               |
| Display                              | switching status          | 4 x 90° LED, yellow                                                                                                           |
| <b>Accessories</b>                   |                           |                                                                                                                               |
| Items supplied                       |                           | lock nuts: 2                                                                                                                  |
| <b>Remarks</b>                       |                           |                                                                                                                               |
| Pack quantity                        |                           | 1 pcs.                                                                                                                        |

## Inductive full-metal sensor

IGK3012-ANKG/AM/P/US-104

### Electrical connection - plug

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



### Connection



### Diagrams and graphs

