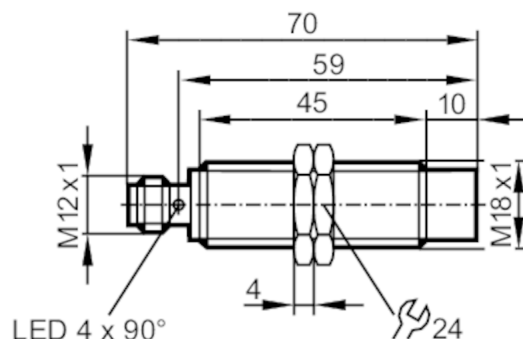


## Inductive sensor

IGK2012-FRKG/2LED/US-104



### Product characteristics

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

### Application

|                 |                                                                    |
|-----------------|--------------------------------------------------------------------|
| Special feature | Gold-plated contacts; Increased sensing range; Optical setting aid |
| Application     | Use in machine tools, coolants and lubricants                      |

### Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Protection class            | II         |
| Reverse polarity protection | yes        |

### Outputs

|                                                      |                                               |
|------------------------------------------------------|-----------------------------------------------|
| Electrical design                                    | PNP/NPN                                       |
| Output function                                      | normally open / normally closed; (selectable) |
| Max. voltage drop switching output DC [V]            | 4.6                                           |
| Minimum load current [mA]                            | 4                                             |
| Max. leakage current [mA]                            | 1                                             |
| Permanent current rating of switching output DC [mA] | 100                                           |
| Switching frequency DC [Hz]                          | 300                                           |
| 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 % |
| Operating distance [mm]    | 0...9.7   |
| Increased sensing range    | yes       |



## Inductive sensor

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| Accuracy / deviations                                                                          |                           |                                                                                                                       |
|------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Correction factor                                                                              |                           | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.5 / copper: 0.4                                           |
| Hysteresis                                                                                     | [% of Sr]                 | 3...15                                                                                                                |
| Switch point drift                                                                             | [% of Sr]                 | -10...10                                                                                                              |
| Operating conditions                                                                           |                           |                                                                                                                       |
| Ambient temperature                                                                            |                           | [°C] -25...70                                                                                                         |
| Protection                                                                                     |                           | IP 68; ("Coolant")                                                                                                    |
| 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                                                                                                               |
| MTTF                                                                                           | [years]                   | 1424                                                                                                                  |
| Mechanical data                                                                                |                           |                                                                                                                       |
| Weight                                                                                         | [g]                       | 52.8                                                                                                                  |
| Housing                                                                                        |                           | threaded type                                                                                                         |
| Mounting                                                                                       |                           | non-flush mountable                                                                                                   |
| Dimensions                                                                                     | [mm]                      | M18 x 1 / L = 70                                                                                                      |
| Thread designation                                                                             |                           | M18 x 1                                                                                                               |
| Materials                                                                                      |                           | housing: brass white bronze coated; sensing face: LCP white;<br>LED window: PEI; lock nuts: brass white bronze coated |
| Tightening torque                                                                              | [Nm]                      | 25                                                                                                                    |
| Displays / operating elements                                                                  |                           |                                                                                                                       |
| Display                                                                                        | switching status          | 4 x 90° LED, yellow                                                                                                   |
|                                                                                                | setting aid               | 1 x LED, red                                                                                                          |
| Optical setting aid                                                                            |                           | yes                                                                                                                   |
| Accessories                                                                                    |                           |                                                                                                                       |
| Items supplied                                                                                 |                           | lock nuts: 2                                                                                                          |
| Remarks                                                                                        |                           |                                                                                                                       |
| Pack quantity                                                                                  |                           | 1 pcs.                                                                                                                |
| Electrical connection - plug                                                                   |                           |                                                                                                                       |
| Connector: 1 x M12; coding: A; Contacts: gold-plated                                           |                           |                                                                                                                       |
| <div></div> |                           |                                                                                                                       |



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### Connection

