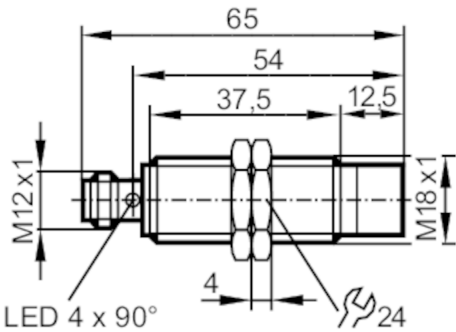




Inductive sensor

IGK3012-BPKG/K1/V4A/US-104



| Product characteristics                         |           |                                                                      |
|-------------------------------------------------|-----------|----------------------------------------------------------------------|
| Electrical design                               |           | PNP                                                                  |
| Output function                                 |           | normally open                                                        |
| Sensing range                                   | [mm]      | 12                                                                   |
| Housing                                         |           | threaded type                                                        |
| Dimensions                                      | [mm]      | M18 x 1 / L = 65                                                     |
| Application                                     |           |                                                                      |
| Special feature                                 |           | Gold-plated contacts; Correction factor K = 1; Magnetic-field immune |
| Application                                     |           | Use in machine tools, coolants and lubricants                        |
| Magnetic-field immune                           |           | yes                                                                  |
| Electrical data                                 |           |                                                                      |
| Operating voltage                               | [V]       | 10...30 DC                                                           |
| Current consumption                             | [mA]      | 20                                                                   |
| Protection class                                |           | II                                                                   |
| 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]      | 2000                                                                 |
| Short-circuit protection                        |           | yes                                                                  |
| Overload protection                             |           | yes                                                                  |
| Detection zone                                  |           |                                                                      |
| Sensing range                                   | [mm]      | 12                                                                   |
| Real sensing range Sr                           | [mm]      | 12 ± 10 %                                                            |
| Operating distance                              | [mm]      | 0...9.72                                                             |
| Accuracy / deviations                           |           |                                                                      |
| Correction factor                               |           | steel: 1 / stainless steel: 1 / brass: 1 / aluminium: 1 / copper: 1  |
| Hysteresis                                      | [% of Sr] | 3...15                                                               |



## Inductive sensor

IGK3012-BPKG/K1/V4A/US-104

|                         |           |          |
|-------------------------|-----------|----------|
| Switch point drift      | [% of Sr] | -10...10 |
| Correction factor K = 1 |           | yes      |

## 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 emission         | class B                 |
| MTTF                       | [years]                   | 657                     |
| Embedded software included |                           | yes                     |
| UL approval                | Ta                        | -25...70 °C             |
|                            | Enclosure type            | Type 1                  |
|                            | power supply              | Limited Voltage/Current |
|                            | UL Approval no.           | A005                    |
|                            | File number UL            | E174191                 |

## Mechanical data

|                    |      |                                                                                                                        |
|--------------------|------|------------------------------------------------------------------------------------------------------------------------|
| Weight             | [g]  | 43                                                                                                                     |
| Housing            |      | threaded type                                                                                                          |
| Mounting           |      | non-flush mountable                                                                                                    |
| Dimensions         | [mm] | M18 x 1 / L = 65                                                                                                       |
| Thread designation |      | M18 x 1                                                                                                                |
| Materials          |      | housing: stainless steel (316L/1.4404); sensing face: LCP white; LED window: PEI; lock nuts: brass white bronze coated |

## Displays / operating elements

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

## Accessories

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

## Remarks

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

## Electrical connection - plug

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



## Inductive sensor

IGK3012-BPKG/K1/V4A/US-104

### Connection



### Diagrams and graphs

#### Installation

