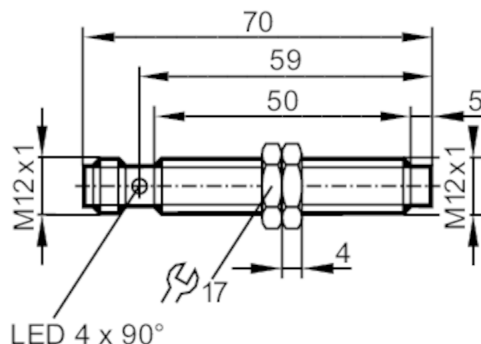


## Inductive sensor

IFK3007-BPKG/US-104



## Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 7                |
| Housing            | threaded type    |
| Dimensions [mm]    | M12 x 1 / L = 70 |

## Application

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

## Electrical data

|                             |            |
|-----------------------------|------------|
| Operating voltage [V]       | 10...30 DC |
| Current consumption [mA]    | < 10       |
| 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]                          | 700           |
| Short-circuit protection                             | yes           |
| Overload protection                                  | yes           |

## Detection zone

|                            |          |
|----------------------------|----------|
| Sensing range [mm]         | 7        |
| Real sensing range Sr [mm] | 7 ± 10 % |
| Operating distance [mm]    | 0...5.67 |
| Increased sensing range    | yes      |

## Accuracy / deviations

|                      |                                                                             |
|----------------------|-----------------------------------------------------------------------------|
| Correction factor    | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3 |
| Hysteresis [% of Sr] | 3...15                                                                      |



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|                    |           |          |
|--------------------|-----------|----------|
| 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 61000-4-5 Surge        | 0,5 kV            |
|                            | EN 61000-4-6 HF conducted | 10 V              |
|                            | EN 55011                  | class B           |
| MTTF                       | [years]                   | 1528              |
| Embedded software included |                           | yes               |
| UL approval                | Ta                        | 0...40 °C         |
|                            | Enclosure type            | Type 1            |
|                            | power supply              | Hazardous voltage |
|                            | UL Approval no.           | A003              |
|                            | File number UL            | E174191           |

## Mechanical data

|                    |      |                                                                                                              |
|--------------------|------|--------------------------------------------------------------------------------------------------------------|
| Weight             | [g]  | 29.6                                                                                                         |
| Housing            |      | threaded type                                                                                                |
| Mounting           |      | non-flush mountable                                                                                          |
| Dimensions         | [mm] | M12 x 1 / L = 70                                                                                             |
| Thread designation |      | M12 x 1                                                                                                      |
| Materials          |      | brass white bronze coated; sensing face: LCP white;<br>LED window: PEI; lock nuts: brass white bronze coated |

## Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | switching status | 4 x 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





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### Connection

