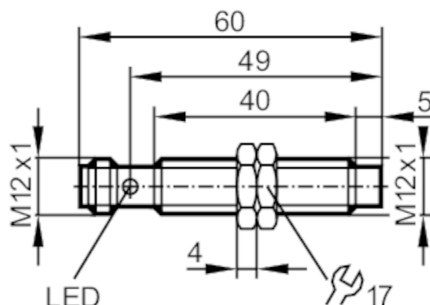


# IF7101



## Inductive sensor

IFK3004-BPKG/US-100



### Product characteristics

|                    |                  |
|--------------------|------------------|
| Electrical design  | PNP              |
| Output function    | normally open    |
| Sensing range [mm] | 4                |
| Housing            | threaded type    |
| Dimensions [mm]    | M12 x 1 / L = 60 |

### Application

|                 |                      |
|-----------------|----------------------|
| Special feature | Gold-plated contacts |
|-----------------|----------------------|

### Electrical data

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

### Detection zone

|                               |              |
|-------------------------------|--------------|
| Sensing range [mm]            | 4            |
| Real sensing range $S_r$ [mm] | $4 \pm 10\%$ |
| Operating distance [mm]       | 0...3.24     |

### Accuracy / deviations

|                                  |                                                                             |
|----------------------------------|-----------------------------------------------------------------------------|
| Correction factor                | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3 |
| Hysteresis [% of $S_r$ ]         | 3...15                                                                      |
| Switch point drift [% of $S_r$ ] | -10...10                                                                    |

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| Operating conditions                                 |                           |                                                                                                               |
|------------------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------------------------|
| Ambient temperature                                  | [°C]                      | -25...70                                                                                                      |
| Protection                                           |                           | IP 67                                                                                                         |
| 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 | 3 V                                                                                                           |
|                                                      | EN 55011                  | class B                                                                                                       |
| MTTF                                                 | [years]                   | 1528                                                                                                          |
| Embedded software included                           |                           | yes                                                                                                           |
| UL approval                                          | Ta                        | -25...70 °C                                                                                                   |
|                                                      | Enclosure type            | Type 1                                                                                                        |
|                                                      | power supply              | Limited Voltage/Current                                                                                       |
|                                                      | UL Approval no.           | A001                                                                                                          |
|                                                      | File number UL            | E174191                                                                                                       |
| Mechanical data                                      |                           |                                                                                                               |
| Weight                                               | [g]                       | 27.2                                                                                                          |
| Housing                                              |                           | threaded type                                                                                                 |
| Mounting                                             |                           | non-flush mountable                                                                                           |
| Dimensions                                           | [mm]                      | M12 x 1 / L = 60                                                                                              |
| Thread designation                                   |                           | M12 x 1                                                                                                       |
| Materials                                            |                           | brass white bronze coated; sensing face: PBT orange;<br>LED window: PEI; lock nuts: brass white bronze coated |
| Displays / operating elements                        |                           |                                                                                                               |
| Display                                              | switching status          | 1 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

