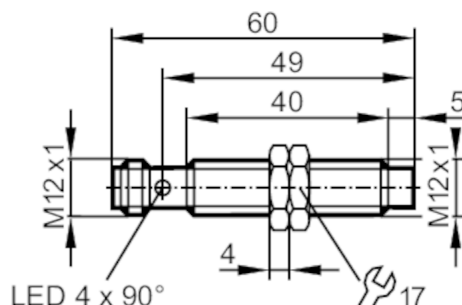


## Inductive sensor with IO-Link

IFK3007-FRKG/IO/US-104



### Product characteristics

|                         |   |
|-------------------------|---|
| Electrical design       | PNP/NPN; (parameterisable)                    |
| Output function         | normally open / normally closed; (selectable) |
| Communication interface | IO-Link                                       |
| Housing                 | threaded type                                 |
| Dimensions [mm]         | M12 x 1 / L = 60                              |

### Electrical data

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

### Outputs

|  |   |
|--|---|
| Electrical design                                    | PNP/NPN; (parameterisable)                    |
| Output function                                      | normally open / normally closed; (selectable) |
| Max. voltage drop switching output DC [V]            | 2.5   |
| Permanent current rating of switching output DC [mA] | 100   |
| Switching frequency DC [Hz]                          | 600   |
| Short-circuit protection                             | yes   |
| Overload protection                                  | yes   |

### Detection zone

|                              |                              |
|------------------------------|------------------------------|
| Switch point IO-Link [mm]    | 1.3...6.5; (parameterisable) |
| Measuring range IO-Link [mm] | 0.7...7                      |

### Accuracy / deviations

|  |   |
|--|---|
| Correction factor                      | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.5 / copper: 0.4 |
| Hysteresis [% of Sr]                   | 3...15  |
| Linearity error of analogue output [%] | ± 2 %; (of the final value of the measuring range)                          |
| Repeatability analogue output [%]      | ± 1 %; (of the final value of the measuring range)                          |
| Temperature coefficient                | ± 0,3 %/K; (of the final value of the measuring range)                      |



## Inductive sensor with IO-Link

IFK3007-FRKG/IO/US-104

| Interfaces                   |   |  |
|------------------------------|---|--|
| Communication interface      | IO-Link   |  |
| Transmission type            | COM2 (38,4 kBaud)   |  |
| IO-Link revision             | 1.1   |  |
| SDCI standard                | IEC 61131-9 CDV   |  |
| Profiles                     | Smart Sensor: Device Identification; Device Diagnosis; Device Teach Channel; Binary Data Channel; Process Data Variable |  |
| SIO mode                     | yes   |  |
| Required master port type    | A   |  |
| Min. process cycle time [ms] | 3   |  |
| Supported DeviceIDs          | Type of operation   | DeviceID   |
|                              | Default   | 791  |
| Operating conditions         |   |  |
| Ambient temperature [°C]     | -40...85  |  |
| Protection                   | IP 65; IP 66; IP 67; IP 68; IP 69K  |  |
| 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  |
| Vibration resistance         | EN 60068-2-6 Fc   | 20 g (10...3000 Hz) / 50 sweep cycles, 1 octave per minute, in 3 axes            |
| Shock resistance             | EN 60068-2-27 Ea  | 100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes |
| Continuous shock resistance  | EN 60068-2-29 Eb  | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes          |
| Fast temperature change      | EN 60068-2-14 Na  | TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles                     |
| MTTF [years]                 | 672   |  |
| UL approval                  | Ta  | -25...70 °C  |
|                              | Enclosure type  | Type 1   |
|                              | power supply  | Limited Voltage/Current  |
|                              | UL Approval no.   | A008   |
|                              | File number UL  | E174191  |
| Mechanical data              |   |  |
| Weight [g]                   | 27.1  |  |
| Housing                      | threaded type   |  |
| Mounting                     | non-flush mountable   |  |
| Dimensions [mm]              | M12 x 1 / L = 60  |  |
| Thread designation           | M12 x 1   |  |
| Materials                    | housing: brass white bronze coated; sensing face: PBT orange; LED window: PEI; lock nuts: brass white bronze coated     |  |

# IF6124



## Inductive sensor with IO-Link

IFK3007-FRKG/IO/US-104

### Displays / operating elements

|         |                                    |                    |
|---------|------------------------------------|--------------------|
| Display | switching status                   | 4 x LED, yellow    |
|         | SIO mode                           |                    |
|         | output stage supplied with current | LED, yellow lights |
|         | IO-Link mode                       |                    |
|         | target in measuring range          | LED, yellow lights |

### Accessories

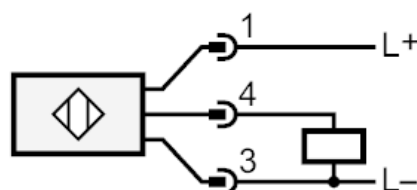
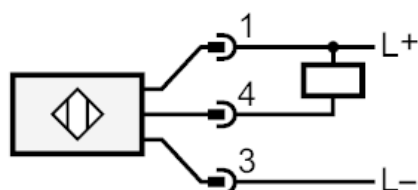
|                |              |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

### Remarks

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

### Electrical connection - plug

Connector: 1 x M12; coding: A



4: OUT / IO-Link