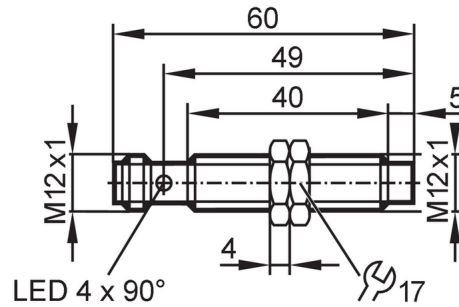


IF6124



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) |

Interfaces

| | |
|-------------------------|-------------------|
| Communication interface | IO-Link |
| Transmission type | COM2 (38,4 kBaud) |

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| | | |
|------------------------------|--------------------------|---------------------------|
| IO-Link revision | 1.1 | |
| SDCI standard | IEC 61131-9 CDV | |
| Profiles | Smart Sensor - SSP 0 | Generic Profiled Sensor |
| | Function | Device identification |
| | Function | Multiple switching signal |
| | Function | Process data variable |
| | Function | Device diagnosis |
| | Function | Teach channel |
| 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 |
| | voltage 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 | |

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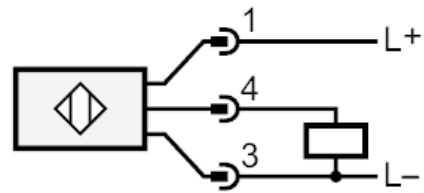
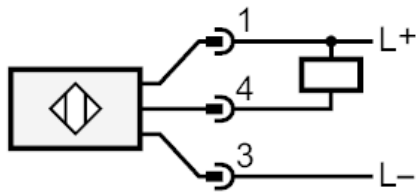
| Displays / operating elements | | |
|-------------------------------|------------------------------------|--------------------|
| Display | switching status | 4 x LED, yellow |
| | SIO mode | |
| | output stage supplied with current | LED, yellow lights |
| | IO-Link mode | |
| | target in measuring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

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

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

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 3



4: OUT / IO-Link