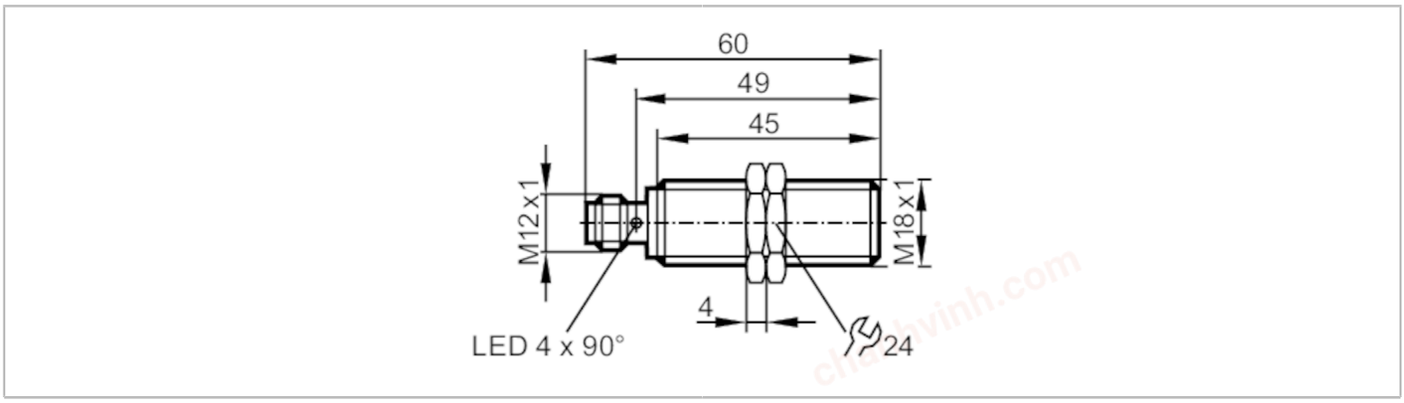
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# IG6087

## Inductive analogue sensor with IO-Link

IGK4005A2PKG/IO/US




| | | |
|---|---|---|
| **Product characteristics** | | |
| Electrical design | | PNP/NPN;  (parameterisable) |
| Output function | | normally open / normally closed;  (parameterisable) |
| Communication interface | | IO-Link |
| Housing | | threaded type |
| Dimensions | [mm] | M18 x 1 / L = 60 |
| **Electrical data** | | |
| Operating voltage | [V] | 15...30 DC |
| Current consumption | [mA] | < 30 |
| Protection class | | II |
| Reverse polarity protection | | yes |
| **Outputs** | | |
| Electrical design | | PNP/NPN;  (parameterisable) |
| Output function | | normally open / normally closed;  (parameterisable) |
| Max. voltage drop switching output DC | [V] | 2.5 |
| Permanent current rating of switching output DC | [mA] | 100 |
| Switching frequency DC | [Hz] | 300 |
| Analogue voltage output | [V] | 0...10; (linear; gradient: 2,222 V/mm; for frontal approach and for target made of mild steel: 18 x 18 x 1 mm) |
| Min. load resistance | [Ω] | 2000 |
| Short-circuit protection | | yes |
| Overload protection | | yes |
| **Detection zone** | | |
| Measuring range | [mm] | 0.5...5 |
| Switch point IO-Link | [mm] | 0.94...4.68 |
| **Accuracy / deviations** | | |
| Correction factor | | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.5 / copper: 0.4 |
| Hysteresis | [% of Sr] | 3...15 |
| Note on hysteresis | | parameterisable |
| Linearity error of analogue output | [%] | ± 1;  (of the final value of the measuring range) |

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| | | |
|---|---|---|
| Repeatability analogue output [%] | ± 1; (of the final value of the measuring range) | |
| Temperature coefficient [%/K vom MEW] | ±0,15 | |
| Temperature drift | ± 5 %; (of the final value of the measuring range) | |
| **Response times** | | |
| Response time [ms] | < 10 | |
| **Interfaces** | | |
| Communication interface | IO-Link | |
| Transmission type | COM2 (38,4 kBaud) | |
| IO-Link revision | 1.1 | |
| SDCI standard | IEC 61131-9 | |
| Profiles | Smart Sensor: Identification and diagnosis; Multi-channel, two setpoint switching sensor, type 0 Generic Profiled Sensor; Teach Channel | |
| SIO mode | yes | |
| Required master port type | A | |
| Min. process cycle time [ms] | 3.2 | |
| IO-Link process data (cyclical) | function | bit length |
| | process value | 16 |
| | device status | 4 |
| | binary switching information | 2 |
| IO-Link functions (acyclical) | switching cycles counter; switch-on cycle counter; operating hours counter; internal temperature; application specific tag | |
| Supported DeviceIDs | Type of operation | DeviceID |
| | Default | 1206 |
| Note | For further information please see the IODD PDF file under "Downloads" | |
| **Operating conditions** | | |
| Ambient temperature [°C] | -25...80 | |
| 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 60068-2-27 | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes |
| Fast temperature change | EN 60068-2-14 Na | TA = -25°C; TB = 80°C; t1 = 30 min; t2 = < 10 s 50 cycles |
| MTTF [years] | 220 | |
| Embedded software included | yes | |

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## Inductive analogue sensor with IO-Link

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| | | | |
|---|---|---|---|
| UL approval | | Ta | -25...60 °C |
| | | Enclosure type | Type 1 |
| | | power supply | Limited Voltage/Current |
| | | UL Approval no. | A024 |
| | | File number UL | E174191 |
| **Mechanical data** | | | |
| Weight | [g] | 54 | |
| Housing | | threaded type | |
| Mounting | | flush mountable | |
| Dimensions | [mm] | M18 x 1 / L = 60 | |
| Thread designation | | M18 x 1 | |
| Materials | | housing: brass white bronze coated; sensing face: PBT orange; LED window: PEI; lock nuts: brass white bronze coated | |
| Tightening torque | [Nm] | 25 | |
| **Displays / operating elements** | | | |
| Display | | target in measuring range | 4 x LED, yellow lights |
| | | target outside measuring range | 4 x LED, yellow flashing |
| **Accessories** | | | |
| Items supplied | | lock nuts: 2 | |
| **Remarks** | | | |
| Pack quantity | | 1 pcs. | |
| **Electrical connection - plug** | | | |

Connector: 1 x M12; coding: A



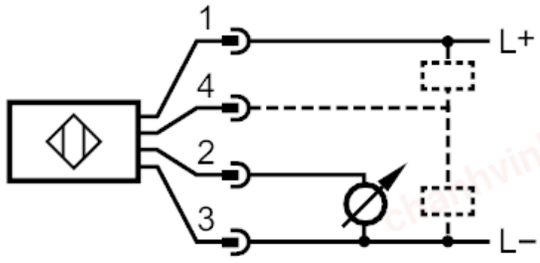
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## Inductive analogue sensor with IO-Link

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### Connection




| | |
|---|---|
| 1 | L + |
| 2 | OUT |
| 3 | L - |
| 4 | OUT / IO-Link |