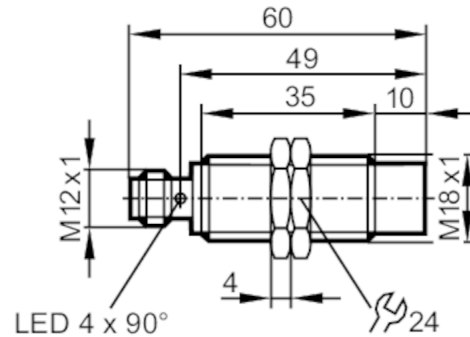


IGS242



Inductive sensor

IGK3012-APKG/US-104



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 closed |
| Max. voltage drop switching output DC | [V] | 2.5 |
| Permanent current rating of switching output DC | [mA] | 100 |
| Switching frequency DC | [Hz] | 300 |
| Short-circuit protection | | yes |
| Overload protection | | yes |

Detection zone

| | | |
|-------------------------|------|-----------|
| Sensing range | [mm] | 12 |
| Real sensing range Sr | [mm] | 12 ± 10 % |
| Operating distance | [mm] | 0...9.72 |
| 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 |
| Switch point drift | [% of Sr] | -10...10 |

Operating conditions

| | | |
|---------------------|------|------------------------------------|
| Ambient temperature | [°C] | -40...85 |
| Protection | | IP 65; IP 66; IP 67; IP 68; IP 69K |

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| 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 per frequency; 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 changes | EN 60068-2-14 Na | TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles |
| Salt spray test | EN 60068-2-52 Kb | severity level 5 (4 test cycles) |
| MTTF | [years] | 1685 |
| UL approval | Ta | -25...70 °C |
| | Enclosure type | Type 1 |
| | voltage supply | Limited Voltage/Current |
| | UL Approval no. | A001 |
| | File number UL | E174191 |
| Mechanical data | | |
| Weight | [g] | 46 |
| Housing | | threaded type |
| Mounting | | non-flush mountable |
| Dimensions | [mm] | M18 x 1 / L = 60 |
| Thread designation | | M18 x 1 |
| Materials | | brass white bronze coated; sensing face: PBT orange; LED window: PEI; lock nuts: brass white bronze coated |
| Displays / operating elements | | |
| Display | switching status | 4 x LED, yellow |
| Accessories | | |
| Accessories (supplied) | | lock nuts: 2 |
| Remarks | | |
| Pack quantity | | 1 pcs. |
| Electrical connection - plug | | |
| Connector: 1 x M12; Contacts: gold-plated | | |
| | | |

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Connection

