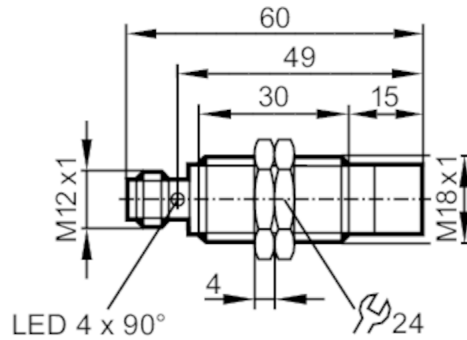


IGS291



Inductive sensor

IGK3012-BPKG/K1/V4A/US-104



| Product characteristics | |
|--|--|
| Electrical design | PNP |
| Output function | normally open |
| Sensing range [mm] | 12 |
| Housing | Threaded type |
| Dimensions [mm] | M18 x 1 / L = 60 |
| Application | |
| System | gold-plated contacts; Increased sensing range; correction factor = 1; Magnetic-field immune |
| Application | material handling; refrigerated warehouse / shock freezing; Suitable for industrial, mobile, cooling and lubricating applications; Industrial applications |
| Magnetic-field immune | yes |
| Max. electromagnetic field immunity [mT] | 300 |
| Electrical data | |
| Operating voltage [V] | 10...30 DC |
| Current consumption [mA] | < 20 |
| 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] | 2000 |
| Short-circuit protection | yes |
| Overload protection | yes |
| Monitoring range | |
| Sensing range [mm] | 12 |
| Real sensing range Sr [mm] | 12 ± 10 % |
| Operating distance [mm] | 0...9.72 |
| Increased sensing range | yes |

IGS291



Inductive sensor

IGK3012-BPKG/K1/V4A/US-104

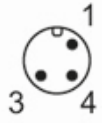
| Accuracy / deviations | | |
|--|---|--|
| Correction factor | steel: 1 / stainless steel: 1 / brass: 1 / aluminum: 1 / copper: 1 | |
| Hysteresis [% of Sr] | 3...15 | |
| Switch-point drift [% of Sr] | -10...10 | |
| Correction factor = 1 | yes | |
| Operating conditions | | |
| Ambient temperature [°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 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate 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 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] | 470 | |
| Embedded software included | yes | |
| UL approval | Ta | -25...70 °C |
| | Enclosure type | Type 1 |
| | voltage supply | Limited Voltage/Current |
| | UL approval number | A005 |
| | File number UL | E174191 |
| Mechanical data | | |
| Weight [g] | 40.5 | |
| Housing | Threaded type | |
| Mounting | non-flush mountable | |
| Dimensions [mm] | M18 x 1 / L = 60 | |
| Thread designation | M18 x 1 | |
| Material | stainless steel (1.4404 / 316L); sensing face: LCP white; LED window: PEI; lock nuts: stainless steel (1.4404 / 316L) | |
| Displays / operating elements | | |
| Display | Switching status | 4 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 | | |

IGS291

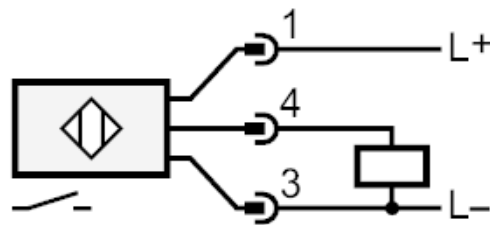


Inductive sensor

IGK3012-BPKG/K1/V4A/US-104



Connection



Diagrams and graphs

Installation

