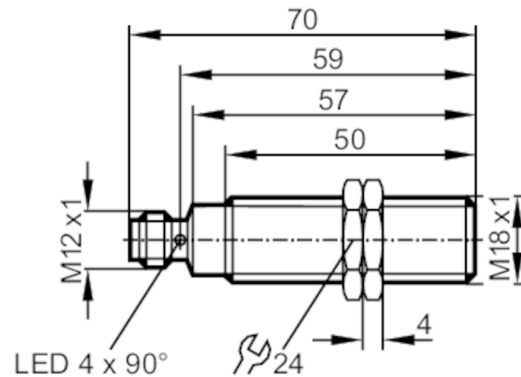


IGM213



Inductive sensor

IGKC008BATKG/M/US



Product characteristics

| | |
|--------------------|------------------|
| Electrical design | NPN |
| Output function | normally open |
| Sensing range [mm] | 8 |
| Housing | threaded type |
| Dimensions [mm] | M18 x 1 / L = 70 |

Application

| | |
|-----------------|---|
| Special feature | Gold-plated contacts; Increased sensing range |
| Application | Use in mobile and harsh applications |

Electrical data

| | |
|-----------------------------|------------|
| Operating voltage [V] | 10...36 DC |
| Current consumption [mA] | < 10 |
| Protection class | II |
| Reverse polarity protection | yes |

Outputs

| | |
|--|---------------|
| Electrical design | NPN |
| Output function | normally open |
| Max. voltage drop switching output DC [V] | 2.5 |
| Max. leakage current [mA] | 0.5 |
| Permanent current rating of switching output DC [mA] | 100 |
| Switching frequency DC [Hz] | 200 |
| Short-circuit protection | yes |
| Type of short-circuit protection | pulsed |
| Overload protection | yes |

IGM213



Inductive sensor

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| Detection zone | | |
|-----------------------------|--|---|
| Sensing range | [mm] | 8 |
| Operating distance | [mm] | 0...6.48 |
| Increased sensing range | | yes |
| Accuracy / deviations | | |
| Correction factor | | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.45 / copper: 0.35 |
| Hysteresis | [% of Sr] | 1...20 |
| Operating conditions | | |
| Ambient temperature | [°C] | -40...85 |
| Protection | | IP 67; IP 69K |
| Tests / approvals | | |
| EMC | automotive area | |
| | noise emission and noise interference according to the automotive directive 95/54/EC | |
| | noise immunity according to DIN ISO 11452-2 | 100 V/m |
| | conducted interference acc. to ISO 7637-2 | |
| | pulse | 1 2 3a 3b 4 5 |
| | severity level | IV IV IV IV IV IV |
| | failure criterion | C C A A A C |
| | 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 61000-4-5 Surge | 0,5 kV line to line, Ri: 2 Ohm |
| | EN 61000-4-6 HF conducted | 10 V |
| | EN 55011 | class B |
| | EN 60068-2-6 Fc | 20 g (10...3000 Hz) / -20...50 °C |
| Vibration resistance | 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 / -40...85 °C | |
| Continuous shock resistance | EN 60068-2-27 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes / -20...50 °C | |
| 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] | 1192 |
| UL approval | Ta | -40...85 °C |
| | Enclosure type | Type 1 |
| | voltage supply | Limited Voltage/Current |
| | File number UL | E174191 |

IGM213



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| Mechanical data | | |
|-------------------------------|------------------|---|
| Weight | [g] | 53.5 |
| Housing | | threaded type |
| Mounting | | flush mountable |
| Dimensions | [mm] | M18 x 1 / L = 70 |
| Thread designation | | M18 x 1 |
| Materials | | housing: stainless steel (1.4404 / 316L); sensing face: LCP |
| Displays / operating elements | | |
| Display | switching status | 4 x 90° LED, yellow |
| Accessories | | |
| Accessories (supplied) | | lock nuts: 2 |
| Remarks | | |
| Pack quantity | | 1 pcs. |

Electrical connection - plug

Connector: 1 x M12; Contacts: gold-plated



Connection

