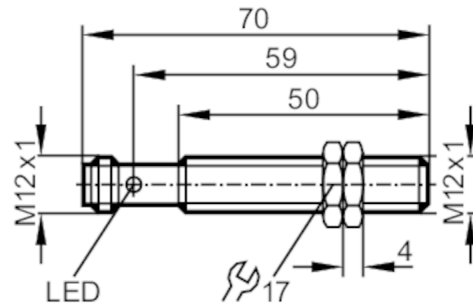


IFM205



Inductive sensor

IFK3004BBPKG/M/60V/US-104-DPS



Product characteristics

| | |
|--------------------|------------------|
| Electrical design | PNP |
| Output function | normally open |
| Sensing range [mm] | 4 |
| Housing | threaded type |
| Dimensions [mm] | M12 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...60 DC |
| Current consumption [mA] | < 10 |
| Protection class | II |
| 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] | 200 |
| Switching frequency DC [Hz] | 400 |
| Short-circuit protection | yes |
| Type of short-circuit protection | pulsed |
| Overload protection | yes |

Detection zone

| | |
|-------------------------|----------|
| Sensing range [mm] | 4 |
| Operating distance [mm] | 0...3.24 |
| Increased sensing range | yes |

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| Accuracy / deviations | | |
|-------------------------------|--|--|
| Correction factor | steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.5 / copper: 0.4 | |
| 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 | E1 type approval |
| | 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 mains line to line |
| | EN 61000-4-6 HF conducted | 10 V |
| | EN 55011 | class B |
| Vibration resistance | EN 60068-2-6 Fc | 20 g (10...3000 Hz) / -20...50 °C 50 sweep cycles per frequency; 1 octave per minute in 3 axes |
| | 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 |
| Shock resistance | EN 60068-2-27 | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes / -20...50 °C |
| Continuous shock resistance | EN 60068-2-14 Na | TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles |
| Fast temperature change | EN 60068-2-52 Kb | severity level 5 (4 test cycles) |
| Salt spray test | 662 | |
| MTTF [years] | 662 | |
| UL approval | Ta | 0...40 °C |
| | Enclosure type | Type 1 |
| | voltage supply | Hazardous voltage |
| | File number UL | E174191 |
| Mechanical data | | |
| Weight [g] | 30.1 | |
| Housing | threaded type | |
| Mounting | flush mountable | |
| Dimensions [mm] | M12 x 1 / L = 70 | |
| Thread designation | M12 x 1 | |
| Materials | housing: stainless steel; sensing face: PBT; lock nuts: brass | |
| Displays / operating elements | | |
| Display | switching status | 4 x 90° LED, yellow |

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Inductive sensor

IFK3004BBPKG/M/60V/US-104-DPS

| Accessories | |
|---|--------------|
| Accessories (supplied) | lock nuts: 2 |
| Remarks | |
| Pack quantity | 1 pcs. |
| Electrical connection - plug | |
| Connector: 1 x M12; Contacts: gold-plated | |

