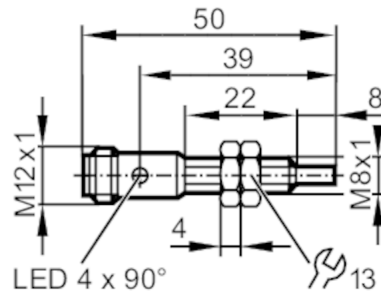


IES257



Inductive sensor

IEB3006-BPKG/K1/V4A/US-104



Product characteristics

| | | |
|-------------------|------|-----------------|
| Electrical design | | PNP |
| Output function | | normally open |
| Sensing range | [mm] | 6 |
| Housing | | threaded type |
| Dimensions | [mm] | M8 x 1 / L = 50 |

Application

| | | |
|------------------------------|---|-----|
| Special feature | Increased sensing range; Correction factor K = 1; Magnetic-field immune | |
| Magnetic-field immune | | yes |
| Max. magnetic 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 |

Detection zone

| | | |
|-------------------------|------|----------|
| Sensing range | [mm] | 6 |
| Real sensing range Sr | [mm] | 6 ± 10 % |
| Operating distance | [mm] | 0...4.86 |
| Increased sensing range | | yes |

Accuracy / deviations

| | | |
|--------------------|-----------|---|
| Correction factor | | steel: 1 / stainless steel: 1 / brass: 1 / aluminium: 1 / copper: 1 |
| Hysteresis | [% of Sr] | 3...15 |
| Switch point drift | [% of Sr] | -10...10 |

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| | |
|-------------------------|-----|
| Correction factor K = 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 (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 Ea | 40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes |
| Fast temperature change | 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] | | 1222 |
| Embedded software included | | yes |
| UL approval | Ta | -25...70 °C |
| | Enclosure type | Type 1 |
| | power supply | Limited Voltage/Current |
| | UL Approval no. | A033 |
| | File number UL | E174191 |

Mechanical data

| | |
|------------------------|--|
| Weight [g] | 16.6 |
| Housing | threaded type |
| Mounting | non-flush mountable |
| Dimensions [mm] | M8 x 1 / L = 50 |
| Thread designation | M8 x 1 |
| Materials | stainless steel (1.4404 / 316L); sensing face: LCP white; LED window: PEI; lock nuts: stainless steel (1.4404 / 316L) |
| Tightening torque [Nm] | A = 5 mm: 2 Nm; B: 5 Nm |

Displays / operating elements

| | | |
|---------|------------------|---------------|
| Display | switching status | 4 LED, yellow |
|---------|------------------|---------------|

Accessories

| | |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

Remarks

| | |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

IES257

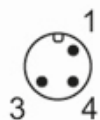


Inductive sensor

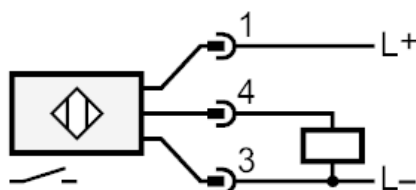
IEB3006-BPKG/K1/V4A/US-104

Electrical connection - plug

Connector: 1 x M12; coding: A



Connection



Diagrams and graphs

Installation

