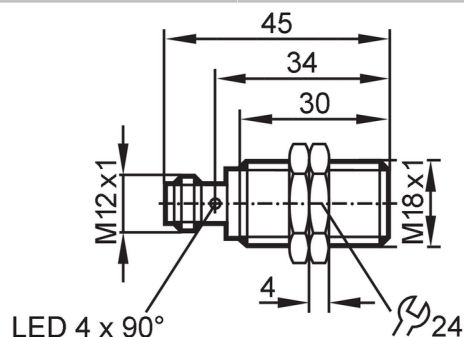


IGR207



Inductive full-metal sensor

IGB3008BBPKG/AM/SC/V4A/US-104



Product characteristics

| | |
|--------------------|------------------|
| Electrical design | PNP |
| Output function | normally open |
| Sensing range [mm] | 8 |
| Housing | threaded type |
| Dimensions [mm] | M18 x 1 / L = 45 |

Application

| | |
|-----------------------------------|--|
| Special feature | Gold-plated contacts; Increased sensing range; Full-metal housing; Magnetic-field immune |
| Application | Use in welding applications |
| Pressure rating | 100 bar 10 MPa |
| Note on pressure rating | sensing face |
| Magnetic-field immune | yes |
| Max. magnetic field immunity [mT] | 100 |

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 open |
| Max. voltage drop switching output DC [V] | 2.5 |
| Permanent current rating of switching output DC [mA] | 100 |
| Switching frequency DC [Hz] | 2 |
| Short-circuit protection | yes |
| Overload protection | yes |

Detection zone

| | |
|----------------------------|----------|
| Sensing range [mm] | 8 |
| Real sensing range Sr [mm] | 8 ± 10 % |
| Operating distance [mm] | 0...6.48 |
| Increased sensing range | yes |

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| Accuracy / deviations | | |
|-------------------------------|--|--|
| Correction factor | steel: 1 / stainless steel: 0.7 / brass: 0.6 / aluminium: 0.5 / copper: 0.2 | |
| 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 | |
| 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 |
| Impact resistance | 1 J | |
| 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 | 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 |
| MTTF [years] | 1176 | |
| Embedded software included | yes | |
| UL approval | Ta | -25...70 °C |
| | Enclosure type | Type 1 |
| | power supply | Limited Voltage/Current |
| | UL approval no. | A012 |
| | File number UL | E174191 |
| Mechanical data | | |
| Weight [g] | 45 | |
| Housing | threaded type | |
| Mounting | flush mountable | |
| Dimensions [mm] | M18 x 1 / L = 45 | |
| Thread designation | M18 x 1 | |
| Materials | stainless steel (316L/1.4404) anti-spatter; sensing face: stainless steel (316L/1.4404) anti-spatter; LED window: PEI; lock nuts: brass anti-spatter | |
| Tightening torque [Nm] | 20 | |
| Full-metal housing | yes | |
| Displays / operating elements | | |
| Display | switching status | 4 x LED, yellow |
| | operation | 1 x LED, green |
| Accessories | | |
| Items supplied | lock nuts: 2 | |
| Remarks | | |
| Pack quantity | 1 pcs. | |

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Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection

