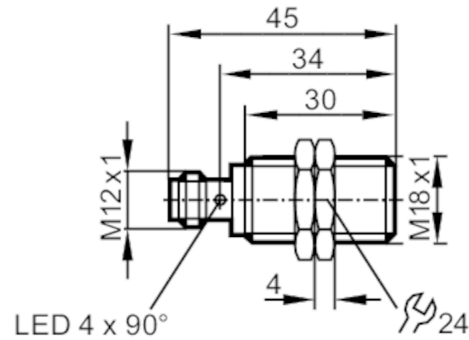


# IGR207



## 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; anti-spatter
Application		Use in welding applications
Pressure rating	[bar]	100
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

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Detection zone		
Sensing range	[mm]	8
Real sensing range Sr	[mm]	8 ± 10 %
Operating distance	[mm]	0...6.48
Increased sensing range		yes
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 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
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
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage 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 (1.4404 / 316L) anti-spatter; sensing face: stainless steel (1.4404 / 316L) 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

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

