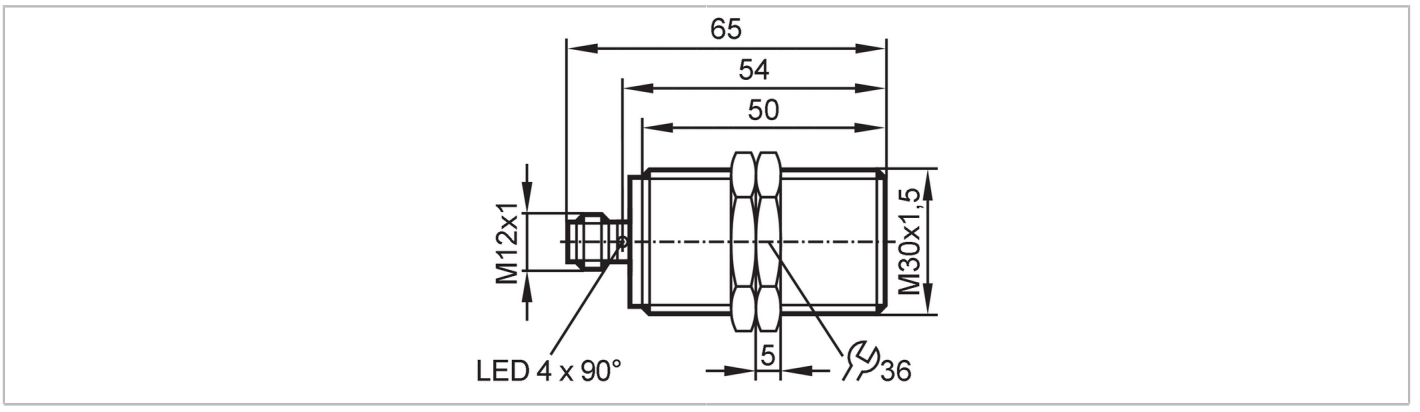
IIR202

Inductive full-metal sensor

IIK3012BANKG/AM/SC/US-104-DNS



Product characteristics			
Electrical design		NPN	
Output function		normally open	
Sensing range	[mm]	12	
Housing		threaded type	
Dimensions	[mm]	M30 x 1.5 / L = 65	
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; (pulse duration of the welding current: < 200 ms)	
Electrical data			
Operating voltage	[V]	10...30 DC	
Current consumption	[mA]	< 20	
Protection class		III	
Reverse polarity protection		yes	
Outputs			
Electrical design		NPN	
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	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Detection zone			
Sensing range	[mm]	12	
Operating distance	[mm]	0...9.7	

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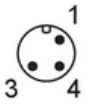
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Increased sensing range			yes
Accuracy / deviations			
Correction factor			steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminium: 0.5 / copper: 0.1
Hysteresis	[% of Sr]		1...20
Operating conditions			
Ambient temperature	[°C]		0...85
Protection			IP 67
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 emission	class B
Impact resistance			1 J
MTTF	[years]		1116
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]		139.1
Housing			threaded type
Mounting			flush mountable
Dimensions	[mm]		M30 x 1.5 / L = 65
Thread designation			M30 x 1.5
Materials			housing: stainless steel (316L/1.4404) anti-spatter; sensing face: stainless steel (316L/1.4404) anti-spatter; LED window: PEI; lock nuts: stainless steel (316L/1.4404) anti-spatter
Tightening torque	[Nm]		60
Full-metal housing			yes
Displays / operating elements			
Display		switching status	4 x 90° LED, yellow
		operation	1 x LED, green
Accessories			
Items supplied			lock nuts: 2
Remarks			
Pack quantity			1 pcs.

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 3, gold-plated

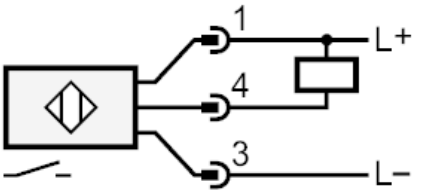


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Inductive full-metal sensor

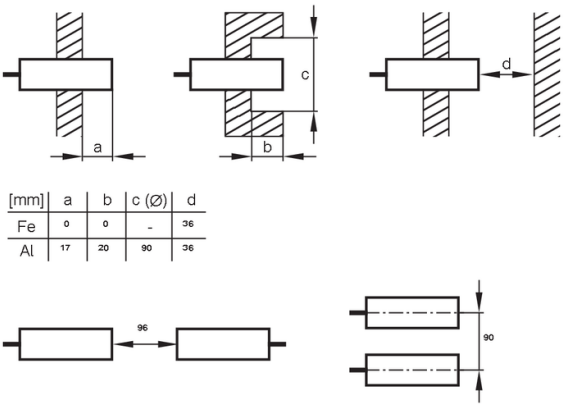
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Connection



Diagrams and graphs

Installation



[mm]	a	b	c (Ø)	d
Fe	0	0	-	36
Al	17	20	90	36