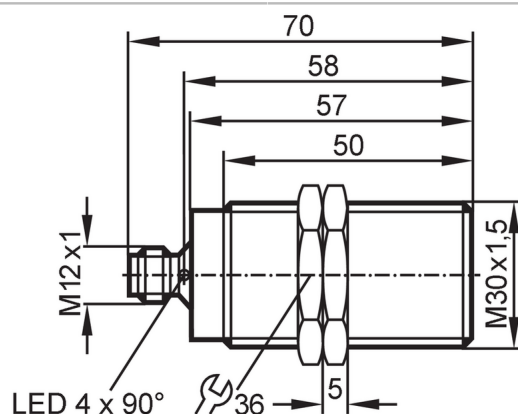




Inductive full-metal sensor

IIR3012BBPKG/AM/SC/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	12
Housing	Threaded type
Dimensions [mm]	M30 x 1.5 / L = 70

Application

Special feature	gold-plated contacts; Increased sensing range; Full-metal housing; Magnetic-field immune
Application	Inductive sensors for 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	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
Type of short-circuit protection	yes (non-latching)
Overload protection	yes

Monitoring range

Sensing range [mm]	12
Operating distance [mm]	0...9.7

IIR200



Inductive full-metal sensor

IIK3012BBPKG/AM/SC/US-104

Increased sensing range	yes
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Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminum: 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]		938
Embedded software included		no
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A012
	File number UL	E174191

Mechanical data

Weight [g]	146
Housing	Threaded type
Mounting	flush mountable
Dimensions [mm]	M30 x 1.5 / L = 70
Thread designation	M30 x 1.5
Material	housing: stainless steel (1.4404 / 316L) weld coated; sensing face: stainless steel (1.4404 / 316L) weld coated; LED window: PEI; lock nuts: stainless steel (1.4404 / 316L) weld coated
Tightening torque [Nm]	60
Full-metal housing	yes

Displays / operating elements

Display	Switching status	4 x 90° LED, yellow
	Power	1 x LED, green

Accessories

Items supplied	lock nuts: 2
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Remarks

Pack quantity	1 pcs.
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Electrical connection - plug

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



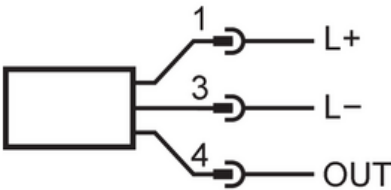
IIR200



Inductive full-metal sensor

IIK3012BBPKG/AM/SC/US-104

Connection



1 L+
3 L-
4 OUT DO (NO)
DO: digital output; NO: normally open

Diagrams and graphs

Installation

