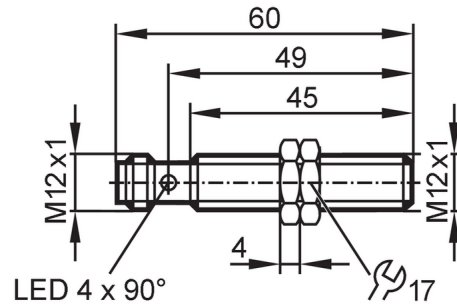


IFR200



Inductive full-metal sensor

IFK3004BBPKG/AM/SC/V4A/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	4
Housing	threaded type
Dimensions [mm]	M12 x 1 / L = 60

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	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	pulsed
Overload protection	yes

Detection zone


Sensing range [mm]	4
Operating distance [mm]	0...3.25
Increased sensing range	yes

IFR200



Inductive full-metal sensor

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Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 0.6 / brass: 0.7 / aluminium: 0.6 / copper: 0.3	
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]	1152	
Embedded software included	yes	
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]	35	
Housing	threaded type	
Mounting	flush mountable	
Dimensions [mm]	M12 x 1 / L = 60	
Thread designation	M12 x 1	
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]	6	
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		
		

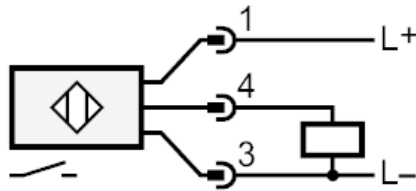
IFR200



Inductive full-metal sensor

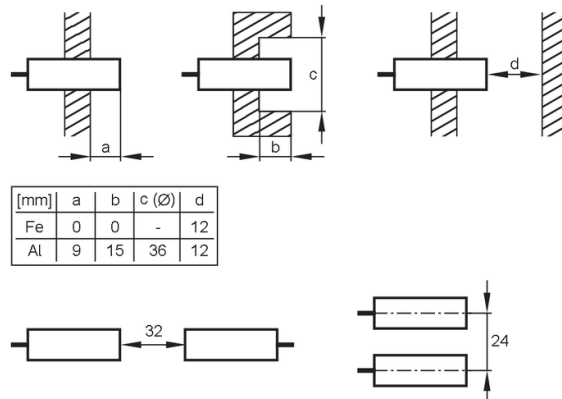
IFK3004BBPKG/AM/SC/V4A/US-104

Connection



Diagrams and graphs

Installation



[mm]	a	b	c (∅)	d
Fe	0	0	-	12
Al	9	15	36	12