

IFR202



Inductive full-metal sensor

IFK3004BANKG/AM/SC/V4A/US-104



Product characteristics

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

Application

System	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	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	yes (non-latching)
Overload protection	yes

Monitoring range

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

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Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 0.6 / brass: 0.7 / aluminum: 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]	1116
Embedded software included		yes
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]	27.6
Housing		Threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 60
Thread designation		M12 x 1
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]	15
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
Remarks		
Pack quantity		1 pcs.
Electrical connection		
		

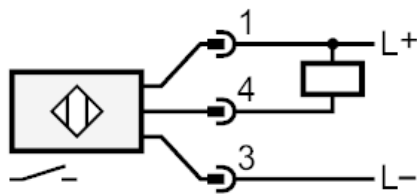
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Connection



Electrical connection - plug

Connector: 1 x M12; Contacts: gold-plated

Diagrams and graphs

Installation

