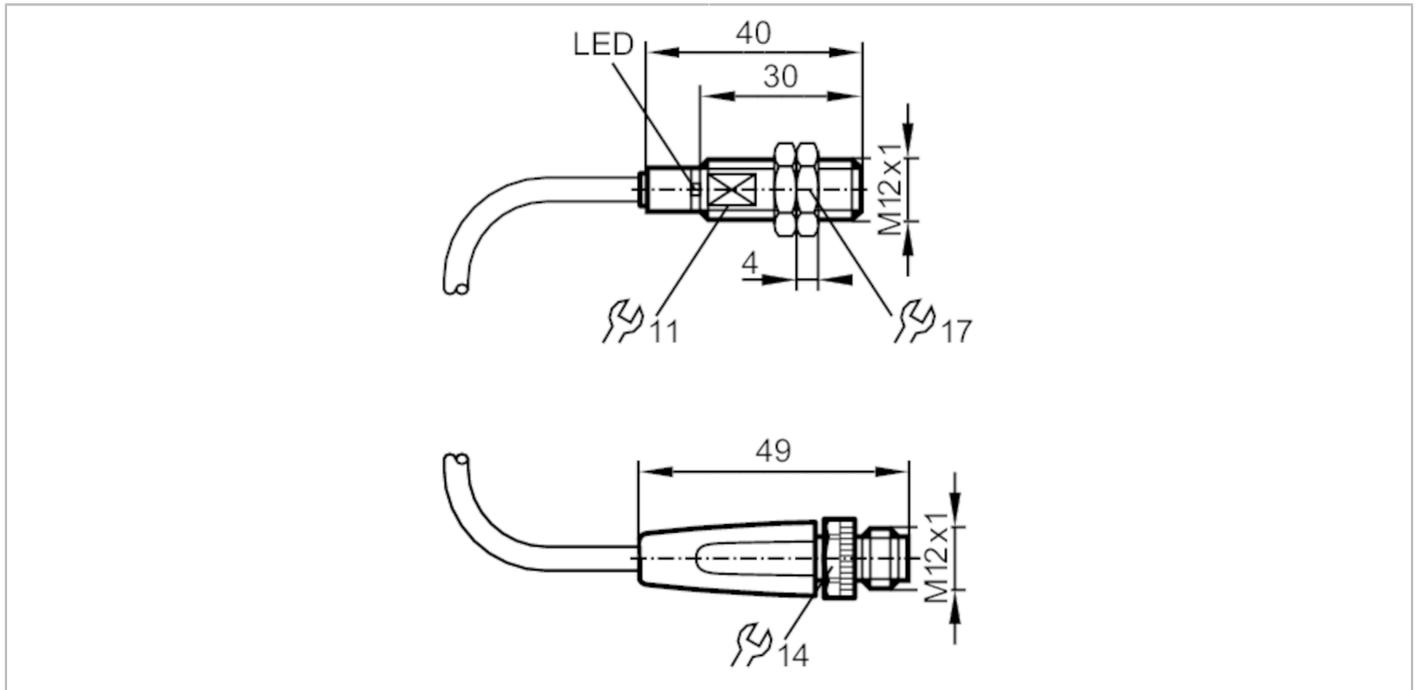


# IFR203



## Inductive full-metal sensor

IFB2004BARKG/AM/SC/0,3M/US/2LE



Product characteristics	
Electrical design	PNP/NPN
Output function	normally open
Sensing range [mm]	4
Housing	threaded type
Dimensions [mm]	M12 x 1 / L = 40
Application	
Special feature	Gold-plated contacts; Increased sensing range; Full-metal housing; Optical setting aid
Application	Use in welding applications
Pressure rating [bar]	50
Note on pressure rating	sensing face
Electrical data	
Operating voltage [V]	10...36 DC
Protection class	III
Reverse polarity protection	yes
Outputs	
Electrical design	PNP/NPN
Output function	normally open
Max. voltage drop switching output DC [V]	2.5
Minimum load current [mA]	2
Max. leakage current [mA]	0.6
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	75

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Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
<b>Detection zone</b>		
Sensing range	[mm]	4
Operating distance	[mm]	0...3.25
Increased sensing range		yes
<b>Accuracy / deviations</b>		
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.2 / aluminium: 0.1 / copper: 0
Hysteresis	[% of Sr]	1...20
<b>Operating conditions</b>		
Ambient temperature	[°C]	-25...70
Protection		IP 67
<b>Tests / approvals</b>		
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]	960
UL approval	Ta	0...40 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	File number UL	E174191
<b>Mechanical data</b>		
Weight	[g]	50
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 40
Thread designation		M12 x 1
Materials		housing: stainless steel (316L/1.4404) anti-spatter; sensing face: stainless steel (316L/1.4404) anti-spatter; cable plug: PA; lock nuts: stainless steel (316L/1.4404) anti-spatter
Full-metal housing		yes
<b>Displays / operating elements</b>		
Display	switching status	1 x LED, green
	setting aid	1 x LED, red
Optical setting aid		yes
<b>Accessories</b>		
Items supplied		lock nuts: 2
<b>Remarks</b>		
Pack quantity		1 pcs.

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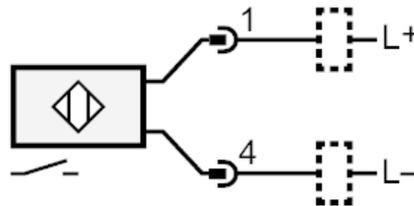
### Electrical connection - plug

Cable: 0.3 m, PVC; 2 x 0.5 mm<sup>2</sup>

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

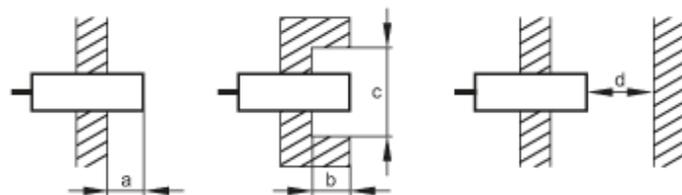


### Connection



### Diagrams and graphs

#### Installation



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

