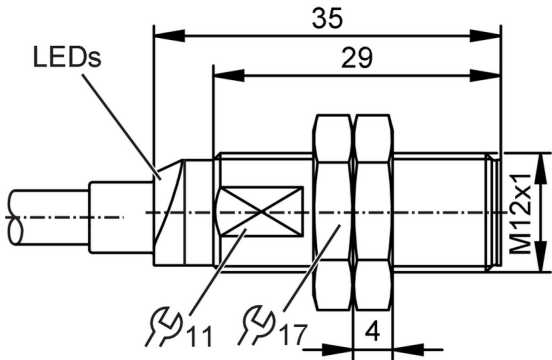


IFR203



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 = 35

Application

Special feature	gold-plated contacts; Increased sensing range; Full-metal housing; optical setting aid
Application	Inductive sensors for welding applications
Pressure rating [bar]	50
Note on pressure rating	sensing face

Electrical data

Operating voltage [V]	10...30 DC
Protection class	III
Reverse polarity protection	yes

Outputs

Electrical design	PNP/NPN
Output function	normally open
Max. voltage drop switching output DC [V]	3.2
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
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...3.24
Increased sensing range	yes

IFR203



Inductive full-metal sensor

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

Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminum: 0.6 / copper: 0.3	
Hysteresis	[% of Sr]	1...20
Operating conditions		
Ambient temperature	[°C]	-40...85
Protection	IP 65; IP 66; IP 67; IP 68; IP 69K	
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]	960
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A042
	File number UL	E174191
Mechanical data		
Weight	[g]	50
Housing	Threaded type	
Mounting	flush mountable	
Dimensions	[mm]	M12 x 1 / L = 35
Thread designation	M12 x 1	
Material	housing: stainless steel (1.4404 / 316L) weld coated; sensing face: stainless steel (1.4404 / 316L) weld coated; cable plug: PEI; lock nuts: stainless steel (1.4404 / 316L) weld coated	
Tightening torque	[Nm]	6
Full-metal housing	yes	
Displays / operating elements		
Display	Switching status	1 x LED, green
	Setting aid	1 x LED, red
Optical setting aid	yes	
Accessories		
Items supplied	lock nuts: 2	
Remarks		
Pack quantity	1 pcs.	
Electrical connection - plug		
Cable: 0.3 m, PVC; 2 x 0.5 mm²		
Connector: 1 x M12; coding: A; Contacts: 2, gold-plated		
		

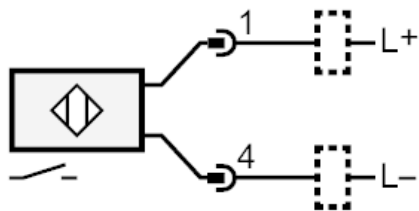
IFR203



Inductive full-metal sensor

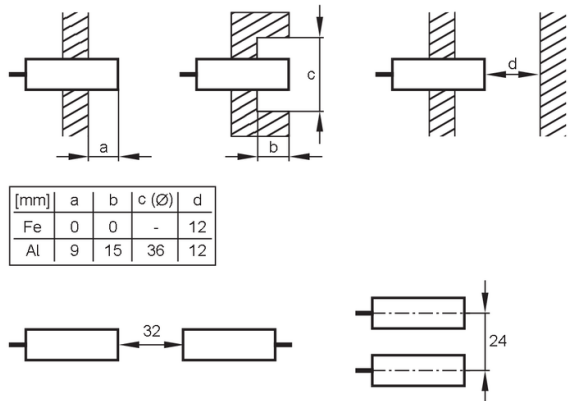
IFB2004BARKG/AM/SC/0,3M/US/2LE

Connection



Diagrams and graphs

Installation



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