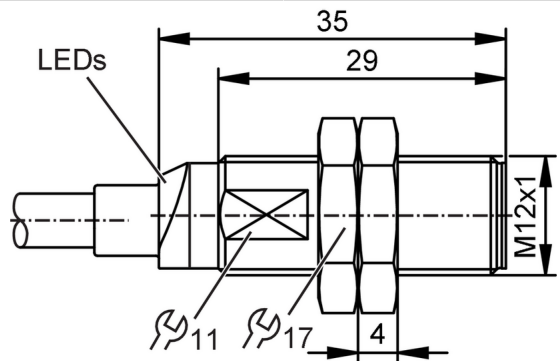


IFR205



Inductive full-metal sensor

IFB2004BARKG/AM/SC/5,0M/2LED



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	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...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	pulsed
Overload protection	yes

Detection zone

Sensing range [mm]	4
Operating distance [mm]	0...3.24
Increased sensing range	yes



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Accuracy / deviations			
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminium: 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]	967
UL approval		Ta	-25...70 °C
		Enclosure type	Type 1
		voltage supply	Limited Voltage/Current
		UL approval no.	A042
		File number UL	E174191
Mechanical data			
Weight		[g]	212.7
Housing		threaded type	
Mounting		flush mountable	
Dimensions		[mm]	M12 x 1 / L = 35
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: PEI; lock nuts: stainless steel (316L/1.4404) anti-spatter	
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.	



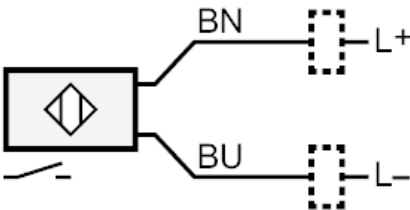
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Electrical connection

Cable: 5 m, PVC; 2 x 0.5 mm²

Connection



BN = Core colours : brown
BU = blue

Diagrams and graphs

Installation

