

Inductive sensor

IFB2004BARKG/M/US-104-ARS



Product characteristics

Electrical design	PNP/NPN
Output function	normally open
Sensing range [mm]	4
Housing	threaded type
Dimensions [mm]	M12 x 1 / L = 45

Application

Special feature	Gold-plated contacts; Increased sensing range
Application	Use in machine tools, coolants and lubricants

Electrical data

Operating voltage [V]	10...30 DC
Protection class	II
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]	0.5
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	700
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

Detection zone

Sensing range [mm]	4
Real sensing range S_r [mm]	$4 \pm 10 \%$
Operating distance [mm]	0...3.25
Increased sensing range	yes



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Accuracy / deviations		
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3
Hysteresis	[% of Sr]	3...15
Switch point drift	[% of Sr]	-10...10
Operating conditions		
Ambient temperature		[°C] -25...70
Protection		IP 68; ("Coolant")
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	class B
MTTF	[years]	2487
UL approval	Ta	0...40 °C
	Enclosure type	Type 1
	power supply	Hazardous voltage
	File number UL	E174191
Mechanical data		
Weight	[g]	24.8
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 45
Thread designation		M12 x 1
Materials		brass white bronze coated; sensing face: LCP
Displays / operating elements		
Display	switching status	4 x 90° LED, yellow
Accessories		
Items supplied		lock nuts: 2
Remarks		
Pack quantity		1 pcs.
Electrical connection - plug		
Connector: 1 x M12; coding: A; Contacts: gold-plated		
		



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Connection

