



Inductive sensor

IFB3002-BPKG/US-104



Product characteristics		
Electrical design		PNP
Output function		normally open
Sensing range	[mm]	2
Housing		threaded type
Dimensions	[mm]	M12 x 1 / L = 45
Application		
Special feature		Gold-plated contacts
Application		Use in machine tools, coolants and lubricants
Electrical data		
Operating voltage	[V]	10...30 DC
Current consumption	[mA]	< 10
Protection class		II
Reverse polarity protection		yes
Outputs		
Electrical design		PNP
Output function		normally open
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	200
Switching frequency DC	[Hz]	700
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Detection zone		
Sensing range	[mm]	2
Real sensing range Sr	[mm]	2 ± 10 %
Operating distance	[mm]	0...1.62
Accuracy / deviations		
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3

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Hysteresis	[% of Sr]	1...20
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]	1083
UL approval	Ta	0...40 °C
	Enclosure type	Type 1
	power supply	Hazardous voltage
	UL Approval no.	A004
	File number UL	E174191

Mechanical data

Weight	[g]	26
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 45
Thread designation		M12 x 1
Materials		housing: brass white bronze coated; sensing face: LCP white; LED window: PEI; lock nuts: brass white bronze coated
Tightening torque	[Nm]	7

Displays / operating elements

Display	switching status	4 x LED, yellow
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Accessories

Items supplied	lock nuts: 2
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Remarks

Pack quantity	1 pcs.
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Electrical connection - plug

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



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Connection

