

Inductive sensor

IFA2002-FRKG/US-100-IRF



Product characteristics

Electrical design	PNP/NPN
Output function	normally open / normally closed; (selectable)
Sensing range [mm]	2
Housing	threaded type
Dimensions [mm]	M12 x 1 / L = 83

Electrical data

Operating voltage [V]	10...55 DC
Protection class	II
Reverse polarity protection	yes

Outputs

Electrical design	PNP/NPN
Output function	normally open / normally closed; (selectable)
Max. voltage drop switching output DC [V]	4.6
Minimum load current [mA]	4
Max. leakage current [mA]	0.5
Permanent current rating of switching output DC [mA]	300
Switching frequency DC [Hz]	1680
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

Detection zone

Sensing range [mm]	2
Real sensing range S_r [mm]	$2 \pm 10 \%$
Operating distance [mm]	0...1.62

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminium: 0.3 / copper: 0.2
Hysteresis [% of S_r]	1...20

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Operating conditions		
Ambient temperature	[°C]	-25...80
Protection		IP 67
Tests / approvals		
EMC	EN 61000-4-2 ESD	8 kV CD / 15 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-5 Surge	0,5 kV line to line, Ri: 2 Ohm
	EN 61000-4-6 HF conducted	10 V
	EN 55011	class B
MTTF	[years]	1844
Mechanical data		
Weight	[g]	34
Housing		threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 83
Thread designation		M12 x 1
Materials		threaded sleeve: brass white bronze coated; sensing face: PBT; end cap: TPE; lock nuts: brass
Displays / operating elements		
Display	switching status	1 x LED, yellow
Accessories		
Items supplied		lock nuts: 2
Remarks		
Pack quantity		1 pcs.

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Electrical connection - plug

Connector: 1 x M12; coding: A

