

IFC241



Inductive sensor

IFK3002-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 = 70

Application

System	gold-plated contacts
Application	Oils and coolants

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	yes (non-latching)
Overload protection	yes

Monitoring range

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

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 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
	UL approval number	A004
	File number UL	E174191

Mechanical data

Weight	[g]	30.7
Housing		Threaded type
Mounting		flush mountable
Dimensions	[mm]	M12 x 1 / L = 70
Thread designation		M12 x 1
Material		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

