



Inductive sensor

IGK2012-FRKG/M/2LED/US-104-IRF



Electrical data

Operating voltage	[V]	10...36 DC; ("supply class 2" to cULus)
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]	1
Permanent current rating of switching output DC	[mA]	100
Switching frequency DC	[Hz]	300
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes

Detection zone

Sensing range	[mm]	12
Real sensing range S_r	[mm]	$12 \pm 10 \%$
Operating distance	[mm]	0...9.7
Increased sensing range		yes

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
Switch point drift	[% of S_r]	-10...10

Operating conditions

Ambient temperature	[°C]	-25...70
Protection		IP 68; ("Coolant")

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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 61000-4-5 Surge		0,5 kV
	EN 61000-4-6 HF conducted		10 V
	EN 55011		class B
MTTF	[years]	1341	
UL approval	Ta		-25...70 °C
	Enclosure type		Type 1
	voltage supply		Class 2
	File number UL		E174191

Mechanical data

Weight	[g]	55
Housing	threaded type	
Mounting	non-flush mountable	
Dimensions	[mm]	M18 x 1 / L = 70
Thread designation	M18 x 1	
Materials	brass white bronze coated; sensing face: PBT orange	

Displays / operating elements

Display	switching status	4 x 90° LED, yellow
	setting aid	1 x LED, red
Optical setting aid	yes	

Accessories

Accessories (supplied)	lock nuts: 2
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Remarks

Pack quantity	1 pcs.
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Electrical connection - plug

Connector: 1 x M12; Contacts: gold-plated



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normally open

