

IF5935



Inductive sensor

IFK2007-FRKG/SC/2LED/US-104



Product characteristics

Electrical design	PNP/NPN
Output function	normally open / closed; (selectable)
Sensing range [mm]	7
Housing	Threaded type
Dimensions [mm]	M12 x 1 / L = 60

Application

System	gold-plated contacts; Increased sensing range; optical setting aid
Application	Industrial applications

Electrical data

Operating voltage [V]	10...30 DC
Protection class	II
Reverse polarity protection	yes

Outputs

Electrical design	PNP/NPN
Output function	normally open / 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]	500
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes

Monitoring range

Sensing range [mm]	7
Real sensing range Sr [mm]	$7 \pm 10\%$
Operating distance [mm]	0...5.7
Increased sensing range	yes

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Accuracy / deviations		
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.5 / copper: 0.4
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 61000-4-5 Surge	0,5 kV line to line, Ri: 2 Ohm
	EN 61000-4-6 HF conducted	10 V
	EN 55011	class B
MTTF	[years]	1428
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A038
	File number UL	E174191
Mechanical data		
Weight	[g]	29.7
Housing		Threaded type
Mounting		non-flush mountable
Dimensions	[mm]	M12 x 1 / L = 60
Thread designation		M12 x 1
Material		housing: brass weld coated; sensing face: LCP black; LED window: PEI; lock nuts: brass weld coated
Tightening torque	[Nm]	5
Displays / operating elements		
Display	Switching status	4 x 90° LED, yellow
	Setting aid	1 x LED, red
Optical setting aid		yes
Accessories		
Items supplied		lock nuts: 2
		tooth lock washers: 2
Remarks		
Pack quantity		1 pcs.

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Electrical connection - plug

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



Connection

