



Inductive sensor

I1K2022-FRKG/2LED/US-104



Product characteristics

Electrical design	PNP/NPN
Output function	normally open / closed; (selectable)
Sensing range [mm]	22
Housing	Threaded type
Dimensions [mm]	M30 x 1.5 / L = 70

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]	100
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes

Monitoring range

Sensing range [mm]	22
Real sensing range Sr [mm]	22 ± 10 %
Operating distance [mm]	0...17.8



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Increased sensing range		yes	
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]	1424		
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]	118.5		
Housing	Threaded type		
Mounting	non-flush mountable		
Dimensions [mm]	M30 x 1.5 / L = 70		
Thread designation	M30 x 1.5		
Material	housing: brass white bronze coated; sensing face: PBT orange; LED window: PEI; lock nuts: brass white bronze coated		
Tightening torque [Nm]	50		
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		
Remarks			
Pack quantity	1 pcs.		

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Electrical connection - plug

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

**Connection**