



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
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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 67

Tests / approvals

EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	3 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	3 V
	EN 55011	class B
MTTF [years]	1424	

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
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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