



Inductive sensor

IGK3005-BPKG/K1/SC/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	5
Housing	Threaded type
Dimensions [mm]	M18 x 1 / L = 65

Application

System	gold-plated contacts; correction factor = 1; Magnetic-field immune; weld coated
Application	Use in welding applications
Magnetic-field immune	yes
Max. electromagnetic field immunity [mT]	300

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 20
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]	100
Switching frequency DC [Hz]	2000
Short-circuit protection	yes
Overload protection	yes

Monitoring range

Sensing range [mm]	5
Real sensing range S_r [mm]	$5 \pm 10 \%$
Operating distance [mm]	0...4.05



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Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 1 / brass: 1 / aluminum: 1 / copper: 1	
Hysteresis [% of Sr]	3...15	
Switch-point drift [% of Sr]	-10...10	
Correction factor = 1	yes	
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	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
	EN 55011	class B
MTTF [years]	657	
Embedded software included	yes	
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A005
	File number UL	E174191
Mechanical data		
Weight [g]	49.6	
Housing	Threaded type	
Mounting	flush mountable	
Dimensions [mm]	M18 x 1 / L = 65	
Thread designation	M18 x 1	
Material	housing: brass weld coated; sensing face: LCP black; LED window: PEI; lock nuts: brass weld coated	
Displays / operating elements		
Display	Switching status	4 x 90° LED, yellow
Accessories		
Items supplied	lock nuts: 2	
Remarks		
Pack quantity	1 pcs.	
Electrical connection - plug		
Connector: 1 x M12; coding: A; Contacts: gold-plated		
		



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Connection

