

Inductive full-metal sensor

IGK3005-BPKG/AM/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	5
Housing	threaded type
Dimensions [mm]	M18 x 1 / L = 70

Application

Special feature	Gold-plated contacts; Full-metal housing
Application	Use in machine tools, coolants and lubricants
Pressure rating [bar]	100
Pressure rating [MPa]	10
Note on pressure rating	sensing face

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 20
Protection class	III
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]	100
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

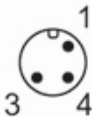
Detection zone

Sensing range [mm]	5
Operating distance [mm]	0...4.05



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Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.7 / aluminium: 0.5 / copper: 0.2	
Hysteresis	[% of Sr]	1...20
Operating conditions		
Ambient temperature	[°C]	-25...70
Protection	IP 67; 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 61000-4-6 HF conducted	10 V
	EN 55011 emission	class B
Impact resistance	1 J	
MTTF	[years]	1258
Embedded software included	yes	
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	A012
	File number UL	E174191
Mechanical data		
Weight	[g]	55.3
Housing	threaded type	
Mounting	flush mountable	
Dimensions	[mm]	M18 x 1 / L = 70
Thread designation	M18 x 1	
Materials	housing: stainless steel (316L/1.4404); sensing face: stainless steel (316L/1.4404); LED window: PEI; lock nuts: stainless steel (316L/1.4404)	
Tightening torque	[Nm]	50
Full-metal housing	yes	
Displays / operating elements		
Display	switching status	4 x 90° LED, yellow
Accessories		
Items supplied	lock nuts: 2	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
		

IGC248

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Connection



Electrical connection - plug

Connector: 1 x M12; Contacts: gold-plated