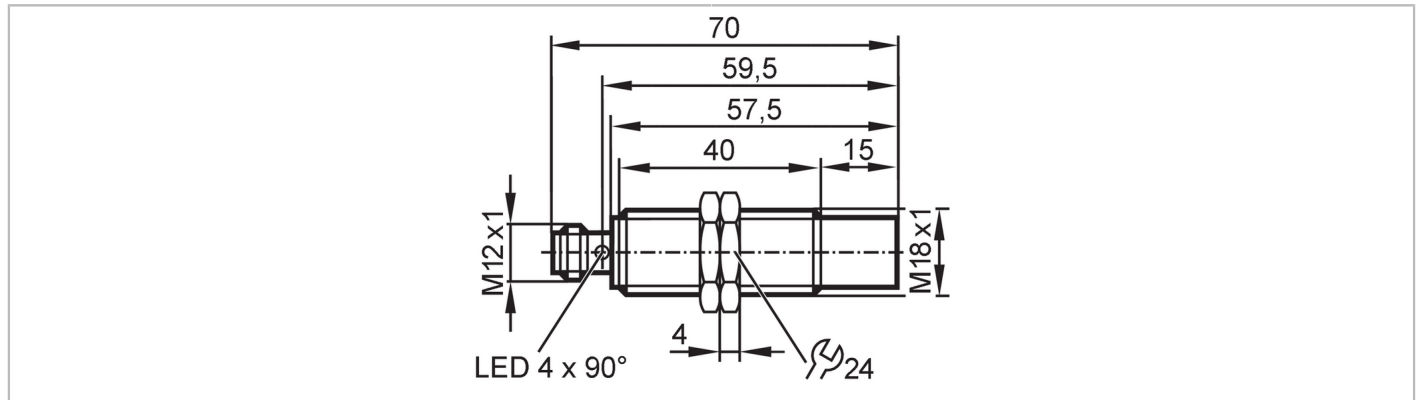


IGT249



Inductive full-metal sensor

IGK3012-BPKG/AM/PI/US




Product characteristics		
Electrical design		PNP
Output function		normally open
Sensing range	[mm]	12
Housing		threaded type
Dimensions	[mm]	M18 x 1 / L = 70
Application		
Special feature	Gold-plated contacts; Increased sensing range; Full-metal housing	
Application	Use in hygienic areas / regular cleaning processes	
Pressure rating	100 bar	10 MPa
Note on pressure rating	sensing face	
Electrical data		
Operating voltage	[V]	10...30 DC
Current consumption	[mA]	< 25
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]	250
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Detection zone		
Sensing range	[mm]	12
Real sensing range Sr	[mm]	12 ± 10 %
Operating distance	[mm]	0...9.7

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Increased sensing range		yes
Accuracy / deviations		
Correction factor		steel: 1 / stainless steel: 1 / brass: 0.9 / aluminium: 0.8 / copper: 0.5
Hysteresis	[% of Sr]	1...20
Switch point drift	[% of Sr]	-10...10
Operating conditions		
Ambient temperature	[°C]	0...100
Protection		IP 65; IP 67; IP 68; IP 69K
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	EN 60068-2-75 Ehc	1 J
MTTF	[years]	1262
Embedded software included		yes
UL approval	Ta	0...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval no.	A012
	File number UL	E174191
Mechanical data		
Weight	[g]	63.016
Housing		threaded type
Mounting		non-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); 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 - plug		
Connector: 1 x M12; coding: A; Contacts: 3, gold-plated		
		

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Connection



Diagrams and graphs

