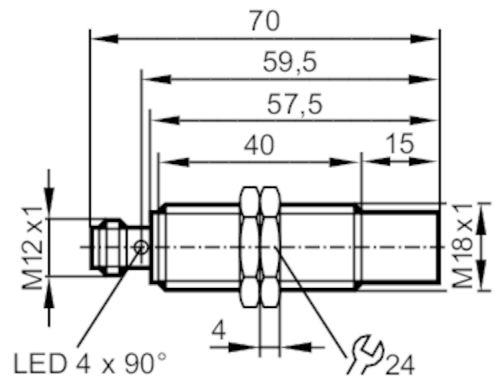


IG511A



Inductive full-metal sensor

IGK3012-BPKG/AM/P/US104/3G/3D



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	
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]	500
Short-circuit protection	yes	
Overload protection	yes	
Detection zone		
Sensing range	[mm]	12
Real sensing range Sr	[mm]	12 ± 10 %
Operating distance	[mm]	0...9.72
Increased sensing range	yes	

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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] -40...60
Protection		IP 67; (when used outside the hazardous area: IP 65, IP 67, IP 68, IP 69K)
Tests / approvals		
Approval		BVS 20 ATEX E 055 X; IECEx BVS 20.0042 X
ATEX marking		 II 3G Ex ec IIC T4 Gc
		 II 3D Ex tc IIIC T95°C Dc
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
Impact resistance	EN 60068-2-75 Ehc	1 J
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / 50 sweep cycles, 1 octave per minute, in 3 axes
Shock resistance	EN 60068-2-27 Ea	100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
Continuous shock resistance	EN 60068-2-27 Ea	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature change	EN 60068-2-14 Na	TA = -40°C; TB = 85°C; t1 = 30 min; t2 = 10 s 50 cycles
Salt spray test	EN 60068-2-52 Kb	severity level 5 (4 test cycles)
MTTF	[years]	1352
Mechanical data		
Weight	[g]	79.5
Housing		threaded type
Mounting		non-flush mountable
Dimensions	[mm]	M18 x 1 / L = 70
Thread designation		M18 x 1
Materials		stainless steel (316L/1.4404); PEI; lock nuts: brass white bronze coated
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		
Remarks	To maintain the EMC data:	
	Equalise potential by connecting the sensor housing to the machine earth.	
Pack quantity	1 pcs.	

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Electrical connection - plug

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



Connection



Diagrams and graphs

