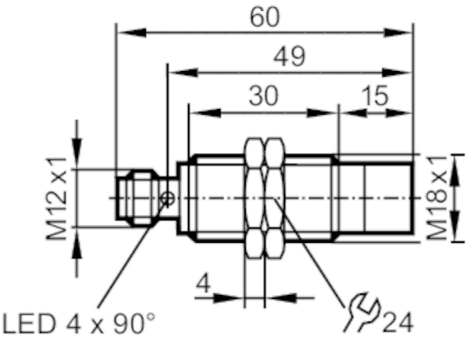


IGS291

Inductive sensor

IGK3012-BPKG/K1/V4A/US-104



Product characteristics		
Electrical design		PNP
Output function		normally open
Sensing range	[mm]	12
Housing		threaded type
Dimensions	[mm]	M18 x 1 / L = 60
Application		
Special feature	Gold-plated contacts; Increased sensing range; Correction factor K = 1; Magnetic-field immune	
Application	material handling; refrigerated warehouse / shock freezing; Suitable for industrial, mobile, cooling and lubricating applications; Industrial applications / factory automation	
Magnetic-field immune		yes
Max. magnetic field immunity	[mT]	300
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]	2000
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

IGS291



Inductive sensor

IGK3012-BPKG/K1/V4A/US-104

Increased sensing range		yes	
Accuracy / deviations			
Correction factor		steel: 1 / stainless steel: 1 / brass: 1 / aluminium: 1 / copper: 1	
Hysteresis [% of Sr]		3...15	
Switch point drift [% of Sr]		-10...10	
Correction factor K = 1		yes	
Operating conditions			
Ambient temperature [°C]		-40...85	
Protection		IP 65; IP 66; 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	class B	
Vibration resistance	EN 60068-2-6 Fc	20 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate 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	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]	470		
Embedded software included	yes		
UL approval	Ta	-25...70 °C	
	Enclosure type	Type 1	
	power supply	Limited Voltage/Current	
	UL Approval no.	A005	
	File number UL	E174191	
Mechanical data			
Weight [g]	40.5		
Housing	threaded type		
Mounting	non-flush mountable		
Dimensions [mm]	M18 x 1 / L = 60		
Thread designation	M18 x 1		
Materials	stainless steel (1.4404 / 316L); sensing face: LCP white; LED window: PEI; lock nuts: stainless steel (1.4404 / 316L)		
Displays / operating elements			
Display	switching status	4 x LED, yellow	
Accessories			
Items supplied	lock nuts: 2		
Remarks			
Pack quantity	1 pcs.		

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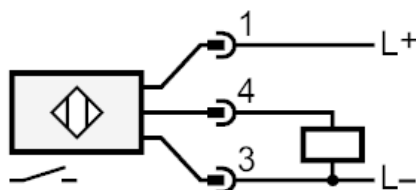


Electrical connection - plug

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



Connection



Diagrams and graphs

Installation

