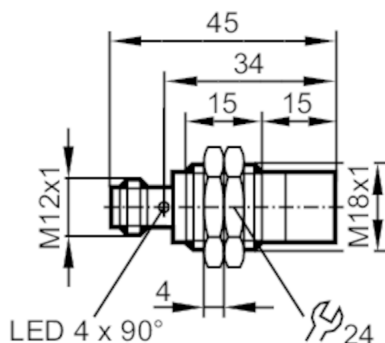




Inductive sensor

IGB3012-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 = 45

Application

System	gold-plated contacts; Increased sensing range; correction factor = 1; Magnetic-field immune
Application	material handling; refrigerated warehouse / shock freezing; Suitable for industrial, mobile, cooling and lubricating applications; Industrial 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	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

Monitoring range

Sensing range [mm]	12
Real sensing range S_r [mm]	$12 \pm 10 \%$
Operating distance [mm]	0...9.72
Increased sensing range	yes



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Accuracy / deviations			
Correction factor		steel: 1 / stainless steel: 1 / brass: 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]	-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 changes	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	
	voltage supply	Limited Voltage/Current	
	UL approval number	A005	
	File number UL	E174191	
Mechanical data			
Weight	[g]	34.6	
Housing	Threaded type		
Mounting	non-flush mountable		
Dimensions	[mm]	M18 x 1 / L = 45	
Thread designation	M18 x 1		
Material	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.		

Inductive sensor

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Electrical connection - plug

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



Connection



Diagrams and graphs

Installation

