



Inductive sensor

IIB3015BBNKG/US-104



Product characteristics

Electrical design	NPN
Output function	normally closed
Sensing range [mm]	15
Housing	Threaded type
Dimensions [mm]	M30 x 1.5 / L = 50

Application

System	gold-plated contacts; Increased sensing range
Application	Suitable for industrial, mobile, cooling and lubricating applications; Industrial applications

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 10
Protection class	III
Reverse polarity protection	yes

Outputs

Electrical design	NPN
Output function	normally closed
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
Overload protection	yes

Monitoring range

Sensing range [mm]	15
Real sensing range Sr [mm]	15 ± 10 %
Operating distance [mm]	0...12.15
Increased sensing range	yes



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Accuracy / deviations			
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3	
Hysteresis	[% of Sr]	3...15	
Switch-point drift	[% of Sr]	-10...10	
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 (10...3000 Hz) / 50 sweep cycles per frequency; 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		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]	1594	
Embedded software included		yes	
UL approval	Ta		-25...70 °C
	Enclosure type		Type 1
	voltage supply		Limited Voltage/Current
	UL approval number		A001
	File number UL		E174191
Mechanical data			
Weight	[g]	109.2	
Housing	Threaded type		
Mounting	flush mountable		
Dimensions	[mm]	M30 x 1.5 / L = 50	
Thread designation	M30 x 1.5		
Material	brass white bronze coated; sensing face: PBT orange; LED window: PEI; lock nuts: brass white bronze coated		
Displays / operating elements			
Display	Switching status	4 x LED, yellow	
Accessories			
Items supplied	lock nuts: 2		
Remarks			
Pack quantity	1 pcs.		

IIS248



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Electrical connection - plug

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



Connection

