

Inductive full-metal sensor

IIB3015BBPKG/AM/V4A/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	15
Housing	threaded type
Dimensions [mm]	M30 x 1.5 / L = 50

Application

Special feature	Gold-plated contacts; Increased sensing range; Full-metal housing
Application	constant cleaning with aggressive cleaning agents; regular cleaning processes
Pressure rating [bar]	100
Note on pressure rating	sensing face

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 10
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]	50
Short-circuit protection	yes
Overload protection	yes

Detection zone

Sensing range [mm]	15
Real sensing range S_r [mm]	$15 \pm 10 \%$
Operating distance [mm]	0...12.15



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Increased sensing range		yes	
Accuracy / deviations			
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.6 / aluminium: 0.5 / copper: 0.2	
Hysteresis [% of Sr]		3...15	
Switch point drift [% of Sr]		-10...10	
Operating conditions			
Ambient temperature [°C]		0...100	
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
Impact resistance			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	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes	
Fast temperature change	EN 60068-2-14 Nc	\$TA_0GradC_TB_100GradC_t1_30_min_t2_10_s_50	
MTTF [years]	1244		
Embedded software included	yes		
UL approval	Ta	0...70 °C	
	Enclosure type	Type 1	
	power supply	Limited Voltage/Current	
	UL Approval no.	A012	
	File number UL	E174191	
Mechanical data			
Weight [g]	113.2		
Housing	threaded type		
Mounting	flush mountable		
Dimensions [mm]	M30 x 1.5 / L = 50		
Thread designation	M30 x 1.5		
Materials	stainless steel (316L/1.4404); sensing face: stainless steel (316L/1.4404); LED window: PEI; lock nuts: stainless steel (316L/1.4404)		
Tightening torque [Nm]	80		
Full-metal housing	yes		
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

