

Inductive sensor

IGA3008BBPKG/AM/V4A/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	8
Housing	threaded type
Dimensions [mm]	M18 x 1 / L = 70

Application

Special feature	Gold-plated contacts; Increased sensing range; Full-metal housing
Application	Use in machine tools, coolants and lubricants
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]	100
Short-circuit protection	yes
Overload protection	yes

Detection zone

Sensing range [mm]	8
Real sensing range S_r [mm]	$8 \pm 10 \%$
Operating distance [mm]	0...6.48
Increased sensing range	yes



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Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.6 / aluminium: 0.5 / copper: 0.2	
Hysteresis	[% of Sr]	3...15
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
Impact resistance		1 J
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 change	EN 60068-2-14 Na	TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles
MTTF	[years]	1244
UL approval	UL Approval no.	A012
Mechanical data		
Weight	[g]	55.4
Housing	threaded type	
Mounting	flush mountable	
Dimensions	[mm]	M18 x 1 / L = 70
Thread designation	M18 x 1	
Materials	stainless steel (1.4404 / 316L); sensing face: stainless steel (1.4404 / 316L); LED window: PEI; lock nuts: brass white bronze coated	
Tightening torque	[Nm]	50
Full-metal housing	yes	
Displays / operating elements		
Display	switching status	4 x LED, yellow
Accessories		
Accessories (supplied)	lock nuts: 2	
Remarks		
Pack quantity	1 pcs.	
Electrical connection - plug		
Connector: 1 x M12; Contacts: gold-plated		

IGC259

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Connection

