



Inductive sensor

IFK2007-BRKG/M/60V/8M/HH



Product characteristics

Electrical design	PNP/NPN
Output function	normally closed
Sensing range [mm]	7
Housing	threaded type
Dimensions [mm]	M12 x 1 / L = 79

Application

Special feature	Increased sensing range
Application	Use in mobile and harsh applications

Electrical data

Operating voltage [V]	10...60 DC
Protection class	II
Reverse polarity protection	yes

Outputs

Electrical design	PNP/NPN
Output function	normally closed
Max. voltage drop switching output DC [V]	2.5
Minimum load current [mA]	2
Max. leakage current [mA]	0.5
Permanent current rating of switching output DC [mA]	200
Switching frequency DC [Hz]	300
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

Detection zone

Sensing range [mm]	7
Real sensing range S_r [mm]	$7 \pm 10\%$
Operating distance [mm]	0...5.67
Increased sensing range	yes



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Accuracy / deviations				
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.5 / copper: 0.4		
Hysteresis	[% of Sr]	1...20		
Switch point drift	[% of Sr]	-10...10		
Operating conditions				
Ambient temperature		[°C]	-40...85	
Protection		IP 67; IP 69K		
Tests / approvals				
EMC	automotive area			
	noise emission and noise interference: ECE R10		E1 type approval	
	noise immunity according to DIN ISO 11452-2		100 V/m	
	conducted interference in 24 V networks to ISO 7637-2: 2004 (pulse 1 to 4) and ISO16750-2: 2012 (load dump)			
	pulse		1 2a 2b 3a 3b 4 Load dump	
	severity level		III III III III III Test A	
	failure criterion		C A C A A C C	
	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 61000-4-5 Surge		0,5 kV mains line to line	
	EN 61000-4-6 HF conducted		10 V	
	EN 55011		class B	
	Vibration resistance	EN 60068-2-6 Fc		20 g (10...3000 Hz) / -20...50 °C
				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 / -40...85 °C	
Continuous shock resistance	EN 60068-2-27		40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes / -20...50 °C	
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]	695		
Mechanical data				
Weight	[g]	349		
Housing	threaded type			
Mounting	non-flush mountable			
Dimensions	[mm]	M12 x 1 / L = 79		
Thread designation	M12 x 1			
Materials	housing: stainless steel; sensing face: LCP natural; LED window: PEI; lock nuts: brass			
Displays / operating elements				
Display	switching status		4 x 90° LED, yellow	
Accessories				
Items supplied	lock nuts: 2			

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Remarks

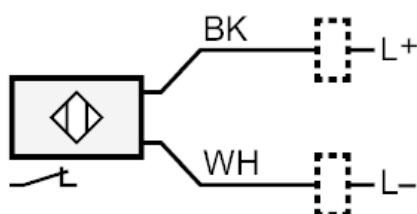
Pack quantity

1 pcs.

Electrical connection

Cable: 8 m, PUR; 2 x 0.5 mm²

Connection



BK =
WH =

Core colours :
black
white