

IFM200



Inductive sensor

IFK2007-BRKG/M/60V/1,4M/HH



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]	400
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

Accuracy / deviations

Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.5 / copper: 0.4
Hysteresis	[% of S_r]	1...20
Switch point drift	[% of S_r]	-10...10

Operating conditions

Ambient temperature	[°C]	-40...85
Protection		IP 67; IP 69K

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Tests / approvals						
EMC	automotive area					
	noise emission and noise interference according to the automotive directive 95/54/EC	E1 type approval				
	noise immunity according to DIN ISO 11452-2	100 V/m				
	conducted interference acc. to ISO 7637-2					
	pulse	1	2	3a	3b	4 5
	severity level	IV	IV	IV	IV	IV
	failure criterion	C	C	A	A	A 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 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 / -40...85 °C				
Continuous shock resistance	EN 60068-2-29 Eb	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes / -20...50 °C				
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]	695				
Mechanical data						
Weight	[g]	81.6				
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: PBT; LED window: PEI; lock nuts: brass				
Displays / operating elements						
Display		switching status	4 x 90° LED, yellow			
Accessories						
Accessories (supplied)		lock nuts: 2				
Remarks						
Pack quantity		1 pcs.				

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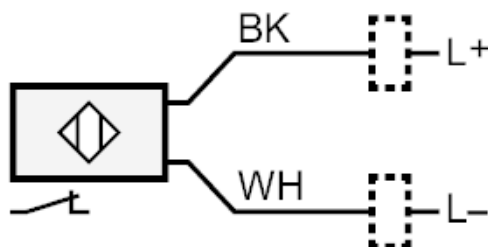
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Electrical connection

Cable: 1.4 m, PUR; 2 x 0.5 mm²

Connection



Core colours :

BK =

black

WH =

white