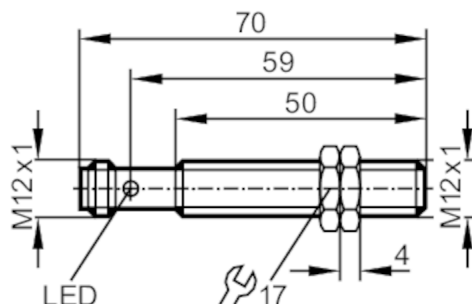




Inductive sensor

IFKC004BASKG/M/US-104-DRS



Product characteristics

Electrical design	PNP/NPN
Output function	normally open
Sensing range [mm]	4
Housing	threaded type
Dimensions [mm]	M12 x 1 / L = 70

Application

Special feature	Gold-plated contacts; Increased sensing range
Application	Use in mobile and harsh applications

Electrical data

Operating voltage [V]	10...36 DC
Current consumption [mA]	< 10; (only in 3-wire operation)
Protection class	II
Reverse polarity protection	yes

Outputs

Electrical design	PNP/NPN
Output function	normally open
Max. voltage drop switching output DC [V]	2.5
Minimum load current [mA]	2; (only in 2-wire operation)
Max. leakage current [mA]	0.5; (only in 2-wire operation)
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	400
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes

Detection zone

Sensing range [mm]	4
Operating distance [mm]	0...3.24
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	
Operating conditions		
Ambient temperature [°C]	-40...85	
Protection	IP 67; IP 69K	
Tests / approvals		
EMC	automotive area	
	noise emission and noise immunity: ECE R10	E1 type approval
	noise immunity according to DIN ISO 11452-2	100 V/m
	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
	ISO 7637-2: 2004 pulse 1	severity level III / function state C (24 V)
	ISO 7637-2: 2004 pulse 2a	severity level III / function state A (24 V)
	ISO 7637-2: 2004 pulse 2b	severity level III / function state C (24 V)
	ISO 7637-2: 2004 pulse 3a	severity level III / function state A (24 V)
	ISO 7637-2: 2004 pulse 3b	severity level III / function state A (24 V)
	ISO 7637-2: 2004 pulse 4	severity level III / function state C (24 V)
Vibration resistance	ISO16750-2: 2012 (load dump)	Test A / function state C
	EN 60068-2-6 Fc	20 g (10...3000 Hz) / -20...50 °C
Shock resistance	EN 60068-2-27 Ea	50 sweep cycles, 1 octave per minute, in 3 axes
		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]	1253	
UL approval	Ta	0...40 °C
	Enclosure type	Type 1
	power supply	Hazardous voltage
	File number UL	E174191
Mechanical data		
Weight [g]	30.4	
Housing	threaded type	
Mounting	flush mountable	
Dimensions [mm]	M12 x 1 / L = 70	
Thread designation	M12 x 1	
Materials	housing: stainless steel; sensing face: LCP natural; LED window: PEI; lock nuts: brass	

IFM203



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Displays / operating elements

Display	switching status	4 x 90° LED, yellow
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Accessories

Items supplied	lock nuts: 2
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Remarks

Pack quantity	1 pcs.
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Electrical connection - plug

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

