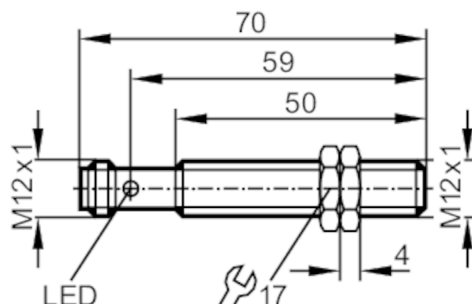


IFM216



Inductive sensor

IFKC004BBSKG/M/60V/US-104-DRO



Electrical data

Operating voltage	[V]	10...60 DC; ("supply class 2" to cULus)
Current consumption	[mA]	< 10; (only in 3-wire operation)
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; (100 mA)
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]	200
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

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

IFM216



Inductive sensor

IFKC004BBSKG/M/60V/US-104-DRO

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	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 line to line, Ri: 2 Ohm					
	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]	662						
UL approval	Ta		0...40 °C					
	Enclosure type		Type 1					
	voltage supply		Class 2					
	File number UL		E174191					
Mechanical data								
Weight	[g]	30						
Housing		threaded type						
Mounting		flush mountable						
Dimensions	[mm]	M12 x 1 / L = 70						
Thread designation		M12 x 1						
Materials		threaded sleeve: stainless steel; sensing face: PBT; 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.						
Electrical connection - plug								
Connector: 1 x M12; Contacts: gold-plated								

IFM216



Inductive sensor

IFKC004BBSKG/M/60V/US-104-DRO



2-wire

