

Inductive sensor

IFK3007-BPKG/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	7
Housing	threaded type
Dimensions [mm]	M12 x 1 / L = 60

Application

Special feature	Gold-plated contacts; Increased sensing range
Application	Use in machine tools, coolants and lubricants

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 10
Protection class	II
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]	200
Switching frequency DC [Hz]	700
Short-circuit protection	yes
Overload protection	yes

Detection zone

Sensing range [mm]	7
Real sensing range Sr [mm]	7 ± 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: 0.4 / copper: 0.3
Hysteresis [% of Sr]	3...15

IFC230



Inductive sensor

IFK3007-BPKG/US-104

Switch point drift	[% of Sr]	-10...10
--------------------	-----------	----------

Operating conditions

Ambient temperature	[°C]	-25...70
Protection		IP 68; ("Coolant")

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
MTTF	[years]	1528
Embedded software included		yes
UL approval	Ta	0...40 °C
	Enclosure type	Type 1
	power supply	Hazardous voltage
	UL Approval no.	A004
	File number UL	E174191

Mechanical data

Weight	[g]	27.2
Housing		threaded type
Mounting		non-flush mountable
Dimensions	[mm]	M12 x 1 / L = 60
Thread designation		M12 x 1
Materials		brass white bronze coated; sensing face: LCP white; LED window: PEI; lock nuts: brass white bronze coated

Displays / operating elements

Display	switching status	4 x LED, yellow
---------	------------------	-----------------

Accessories

Items supplied	lock nuts: 2
----------------	--------------

Remarks

Pack quantity	1 pcs.
---------------	--------

Electrical connection - plug

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



IFC230



Inductive sensor

IFK3007-BPKG/US-104

Connection

