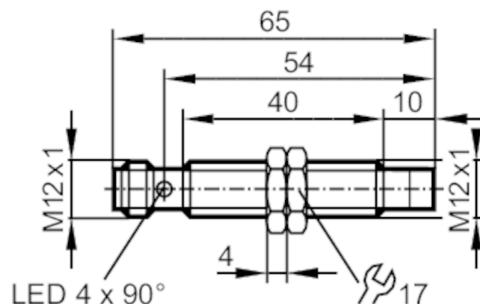




Inductive sensor

IFK3008-BPKG/K1/SC/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	8
Housing	Threaded type
Dimensions [mm]	M12 x 1 / L = 65

Application

System	gold-plated contacts; Increased sensing range; correction factor = 1; Magnetic-field immune
Application	Inductive sensors for welding applications
Magnetic-field immune	yes
Max. electromagnetic field immunity [mT]	300

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 20
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]	100
Switching frequency DC [Hz]	2000
Short-circuit protection	yes
Overload protection	yes

Monitoring range

Sensing range [mm]	8
Real sensing range S_r [mm]	$8 \pm 10 \%$
Operating distance [mm]	0...6.5
Increased sensing range	yes



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Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 1 / brass: 1 / aluminum: 1 / copper: 1	
Hysteresis	[% of Sr]	3...15
Switch-point drift	[% of Sr]	-10...10
Correction factor = 1	yes	
Operating conditions		
Ambient temperature	[°C]	-25...70
Protection	IP 67	
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]	661
Embedded software included	yes	
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A005
	File number UL	E174191
Mechanical data		
Weight	[g]	27.1
Housing	Threaded type	
Mounting	non-flush mountable	
Dimensions	[mm]	M12 x 1 / L = 65
Thread designation	M12 x 1	
Material	housing: brass weld coated; sensing face: LCP black; LED window: PEI; lock nuts: brass weld coated	
Displays / operating elements		
Display	Switching status	4 x 90° 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		
		



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Connection



Diagrams and graphs

Installation

