

IFW210



Inductive sensor

IFB3004UBPKG/K1/SC/US-104



Product characteristics

Electrical design	PNP
Output function	normally open
Sensing range [mm]	4
Housing	threaded type
Dimensions [mm]	M12 x 1 / L = 45

Application

Special feature	Gold-plated contacts; Increased sensing range; Correction factor K = 1; Magnetic-field immune; anti-spatter
Application	Use in welding applications
Magnetic-field immune	yes
Max. magnetic 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

Detection zone

Sensing range [mm]	4
Real sensing range Sr [mm]	4 ± 10 %
Operating distance [mm]	0...3.24
Increased sensing range	yes

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Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 1 / brass: 1 / aluminium: 1 / copper: 1	
Hysteresis [% of Sr]		3...15
Switch point drift [% of Sr]		-10...10
Correction factor K = 1		yes

Operating conditions

Ambient temperature [°C]	-40...85
Protection	IP 65; IP 66; IP 67; IP 68; IP 69K

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 emission	class B
MTTF [years]	659	
Embedded software included	yes	
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	A005
	File number UL	E174191

Mechanical data

Weight [g]	24.3
Housing	threaded type
Mounting	flush mountable
Dimensions [mm]	M12 x 1 / L = 45
Thread designation	M12 x 1
Materials	brass anti-spatter; sensing face: LCP black; LED window: PEI; lock nuts: brass anti-spatter
Tightening torque [Nm]	2

Displays / operating elements

Display	switching status	4 x 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



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Connection

