



Inductive sensor

IEK2001-FRKG/US-104



Product characteristics

Electrical design	PNP/NPN
Output function	normally open / closed; (selectable)
Sensing range [mm]	1
Housing	Threaded type
Dimensions [mm]	M8 x 1 / L = 60

Electrical data

Operating voltage [V]	5...30 DC
Current consumption [mA]	< 10
Protection class	III

Outputs

Electrical design	PNP/NPN
Output function	normally open / closed; (selectable)
Max. voltage drop switching output DC [V]	4.6
Minimum load current [mA]	4
Max. leakage current [mA]	0.8
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]	1
Real sensing range S_r [mm]	$1 \pm 10 \%$
Operating distance [mm]	0...0.81
Increased sensing range	no

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.3 / aluminum: 0.3 / copper: 0.1
Hysteresis [% of Sr]	1...20
Switch-point drift [% of Sr]	-10...10

Operating conditions

Ambient temperature [°C]	-25...80
Protection	IP 67

IE5203



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Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	3 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	3 V
	EN 55011	class B
MTTF	[years]	1703
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A029
	File number UL	E174191
Mechanical data		
Weight	[g]	22.5
Housing		Threaded type
Mounting		flush mountable
Dimensions	[mm]	M8 x 1 / L = 60
Thread designation		M8 x 1
Material		housing: brass white bronze coated; sensing face: LCP orange; LED window: PEI; lock nuts: brass white bronze coated
Tightening torque	[Nm]	A = 5 mm: 1,5 Nm; B: 2 Nm
Full-metal housing		no
Displays / operating elements		
Display	Switching status	1 x LED, yellow
Accessories		
Items supplied		lock nuts: 2 x M8
Remarks		
Pack quantity		1 pcs.
Electrical connection - plug		
Connector: 1 x M12; coding: A		



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Connection



Diagrams and graphs

Installation

