

Inductive sensor with IO-Link

IMC3020BFRKG/IO/US-100



- 1 LED yellow
2 LED green



Product characteristics

Electrical design	PNP/NPN; (parameterisable)
Output function	normally open / normally closed; (selectable)
Communication interface	IO-Link
Housing	rectangular
Dimensions [mm]	40 x 40 x 54

Application

Special feature	Gold-plated contacts
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Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	10
Protection class	III
Reverse polarity protection	yes

Outputs

Electrical design	PNP/NPN; (parameterisable)
Output function	normally open / normally closed; (selectable)
Max. voltage drop switching output DC [V]	2.5



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Permanent current rating of switching output DC	[mA]	100
Switching frequency DC	[Hz]	100
Short-circuit protection		yes
Overload protection		yes

Detection zone

Switch point IO-Link	[mm]	3.9...19.5; (parameterisable)
Measuring range IO-Link	[mm]	2.1...21

Accuracy / deviations

Correction factor		steel: 1 / stainless steel: 0.8 / brass: 0.4 / aluminium: 0.4 / copper: 0.3
Hysteresis	[% of Sr]	3...15
Linearity error of analogue output	[%]	± 2 %; (of the final value of the measuring range)
Repeatability analogue output	[%]	± 1 %; (of the final value of the measuring range)
Temperature coefficient		$\pm 0,2$ %/K; (of the final value of the measuring range)

Interfaces

Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9 CDV
Profiles		Smart Sensor: Device Identification; Device Diagnosis; Device Teach Channel; Binary Data Channel; Process Data Variable
SIO mode		yes
Required master port type		A
Min. process cycle time	[ms]	3
Supported DeviceIDs	Type of operation	DeviceID
	default	791

Operating conditions

Ambient temperature	[°C]	-25...80
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]	632
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	A009
	File number UL	E174191

Mechanical data

Weight	[g]	147
Housing		rectangular



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Sensing face	5 positions selectable
Mounting	flush mountable
Dimensions [mm]	40 x 40 x 54
Materials	housing: PA; sensing face: PA black; end cap: PA; clamp: orange; screw: stainless steel (304CU/1.4567)

Displays / operating elements

Display	operation	LED, green
	SIO mode	
	output stage supplied with current	LED, yellow lights
	IO-Link mode	
	target in measuring range	LED, yellow lights

Remarks

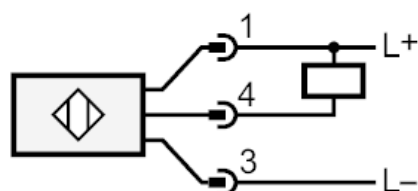
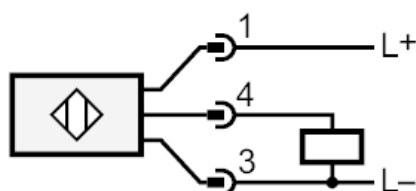
Pack quantity	1 pcs.
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Electrical connection - plug

Connector: 1 x M12; coding: A; Locking: stainless steel (316L/1.4404); Contacts: gold-plated



Connection



4: OUT / IO-Link
Factory setting : PNP / normally open