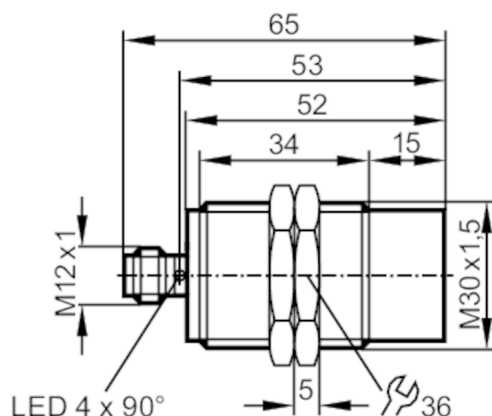




Inductive sensor with IO-Link

IIK3022-FRKG/IO/US-104



Product characteristics

Electrical design	PNP/NPN; (configurable)
Output function	normally open / closed; (selectable)
Communication interface	IO-Link
Housing	Threaded type
Dimensions [mm]	M30 x 1.5 / L = 65

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 15
Protection class	III
Reverse polarity protection	yes

Outputs

Electrical design	PNP/NPN; (configurable)
Output function	normally open / closed; (selectable)
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	100
Short-circuit protection	yes
Overload protection	yes

Monitoring range

Switch point IO-Link [mm]	4.3...21.5; (configurable)
Measuring range IO-Link [mm]	2.3...23

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.5 / copper: 0.4
Hysteresis [% of Sr]	3...15
Linearity error of analog output [%]	± 2 %; (of the final value of the measuring range)
Repeatability analog output [%]	± 1 %; (of the final value of the measuring range)



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Temperature coefficient		± 0,3 %/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 class		A	
Min. process cycle time [ms]		3	
Supported DeviceIDs		Type of operation	DeviceID
		default	791
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		class B
Vibration resistance	EN 60068-2-6 Fc		20 g (10...3000 Hz) / 50 sweep cycles per frequency; 1 octave per minute in 3 axes
Shock resistance	EN 60068-2-27 Ea		100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
Continuous shock resistance	EN 60068-2-29 Eb		40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature changes	EN 60068-2-14 Na		TA = -40 °C; TB = 85 °C; t1 = 30 min; t2 = < 10 s; 50 cycles
MTTF [years]	664		
Embedded software included		yes	
UL approval	Ta		-25...70 °C
	Enclosure type		Type 1
	voltage supply		Limited Voltage/Current
	UL approval number		A008
	File number UL		E174191
Mechanical data			
Weight [g]	113.2		
Housing	Threaded type		
Mounting	non-flush mountable		
Dimensions [mm]	M30 x 1.5 / L = 65		
Thread designation	M30 x 1.5		
Material	brass white bronze coated; sensing face: PBT orange; LED window: PEI; lock nuts: brass white bronze coated		

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Displays / operating elements

Display	Switching status	4 x LED, yellow
	SIO mode	
	output stage supplied with current	LED, yellow lights
	IO-Link mode	
	target in measuring range	LED, yellow lights

Accessories

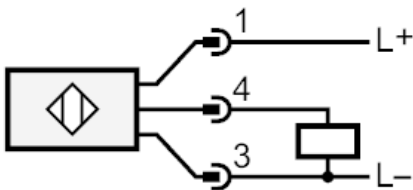
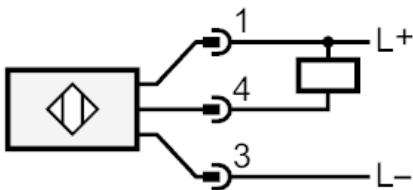
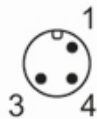
Items supplied	lock nuts: 2
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Remarks

Pack quantity	1 pcs.
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Electrical connection - plug

Connector: 1 x M12; coding: A



4: OUT / IO-Link