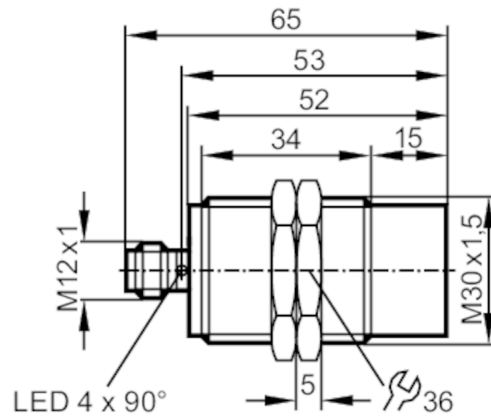


Inductive analog sensor with IO-Link

IIK4015A2PKG/IO/US



Product characteristics

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

Electrical data

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

Outputs

Electrical design	PNP/NPN; (configurable)
Output function	normally open / closed; (configurable)
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	300
Analog voltage output [V]	0...10; (linear; gradient: 0,714 V/mm; for frontal approach and for target made of mild steel: 45 x 45 x 1 mm)
Min. load resistance [Ω]	2000
Short-circuit protection	yes
Overload protection	yes

Monitoring range

Measuring range [mm]	1...15
Switch point IO-Link [mm]	2.37...13.99



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Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminum: 0.4 / copper: 0.3	
Hysteresis [% of Sr]	3...15	
Note on hysteresis	configurable	
Linearity error of analog output [%]	± 1; (of the final value of the measuring range)	
Repeatability analog output [%]	± 1; (of the final value of the measuring range)	
Temperature coefficient [%/K vom MEW]	±0,15	
Temperature drift [% vom MEW]	±5	
Reaction times		
Response time [ms]	< 10	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor: Identification and diagnosis; Multi-channel, two setpoint switching sensor, type 0 Generic Profiled Sensor; Teach Channel	
SIO mode	yes	
Required master port class	A	
Min. process cycle time [ms]	3.2	
IO-Link process data (cyclical)	Function	bit length
	process value	16
	device status	4
	binary switching information	2
IO-Link functions (acyclical)	switching cycles counter; switch-on cycle counter; operating hours counter; internal temperature; application specific tag	
Supported DeviceIDs	Type of operation	DeviceID
	default	1206
Note	For further information please see the IODD PDF file at "Downloads"	
Operating conditions		
Ambient temperature [°C]	-25...80	
Protection	IP 65; IP 66; IP 67; IP 68; IP 69K	



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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 60068-2-27	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature changes	EN 60068-2-14 Na	TA = -25°C; TB = 80°C; t1 = 30 min; t2 = < 10 s 50 cycles
MTTF	[years]	222
UL approval	Ta	-25...60 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A024
	File number UL	E174191
Mechanical data		
Weight	[g]	142
Housing		Threaded type
Mounting		non-flush mountable
Dimensions	[mm]	M30 x 1.5 / L = 65
Thread designation		M30 x 1.5
Material		Housing: brass white bronze coated; sensing face: PBT orange; LED-Fenster: PEI; lock nuts: brass white bronze coated
Tightening torque	[Nm]	50
Displays / operating elements		
Display	target in measuring range	4 x LED, yellow lights
	target outside measuring range	4 x LED, yellow flashing
Accessories		
Items supplied		lock nuts: 2
Remarks		
Pack quantity		1 pcs.
Electrical connection - plug		
Connector: 1 x M12		
		



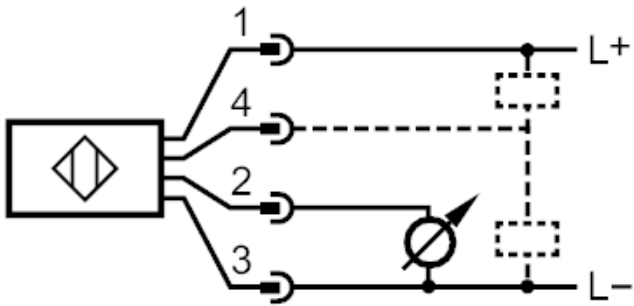
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Connection



1	L +
2	OUT
3	L -
4	OUT / IO-Link