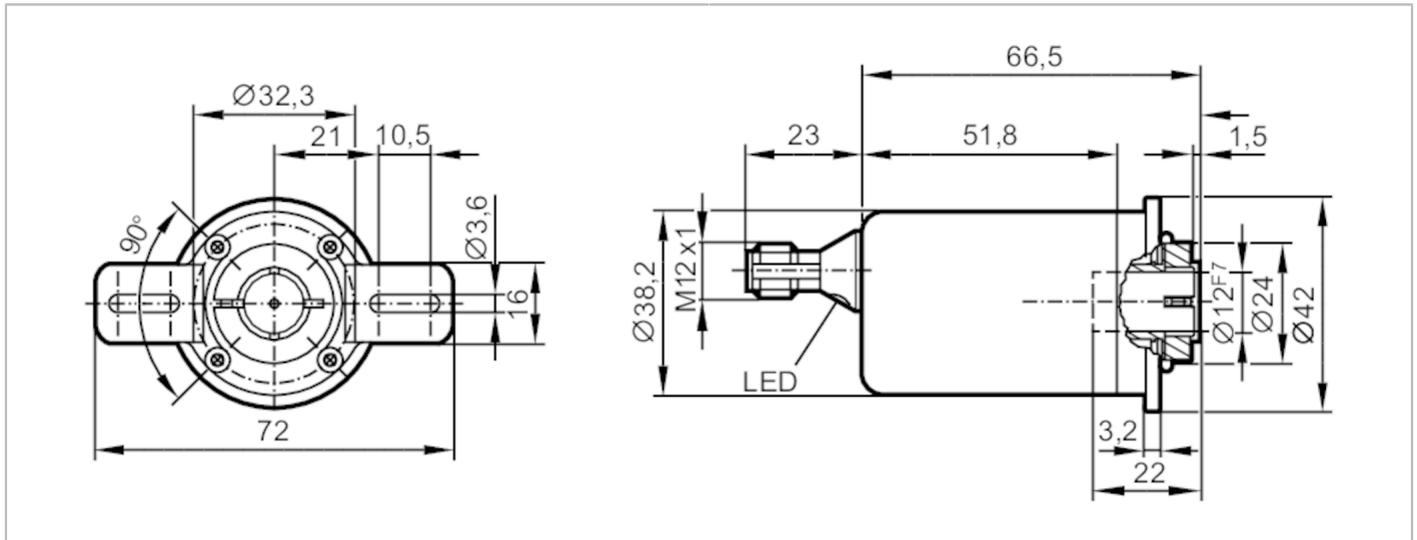


RMA310



Absolute multiturn encoder with hollow shaft

MULTITURN ENCODER WET LINE



Product characteristics	
Resolution	65536 steps; 32768 revolutions; 31 bit
Communication interface	IO-Link
Shaft design	hollow shaft open to one side
Shaft diameter [mm]	12
Application	
Function principle	absolute
Revolution type	multiturn
Detection system	magnetic
Electrical data	
Operating voltage [V]	18...30 DC; (; to PELV)
Rated insulation voltage [V]	30
Current consumption [mA]	< 75
Protection class	III
Reverse polarity protection	yes
Max. power-on delay time [ms]	1000
Max. revolution electrical [U/min]	6000
Inputs	
Short-circuit protection digital inputs	yes
Measuring/setting range	
Resolution	65536 steps; 32768 revolutions; 31 bit
Accuracy / deviations	
Accuracy [°]	0.1
Software / programming	
Parameter setting options	preset; zero point; direction of rotation; rotational speed
Interfaces	
Communication interface	IO-Link



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Transmission type	COM3 (230,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9 CDV	
Profiles	Function class	Designation
	0x4000	Identification and Diagnosis
	0x8001	Multi-channel, two setpoint switching sensor
	0x800B	Measurement Data Channel (high resolution)
SIO mode	no	
Required master port type	A	
Min. process cycle time [ms]	2.3	
IO-Link process data (cyclical)	function	bit length
	process value	96
	device status	4
	binary switching information	5
IO-Link functions (acyclical)	application specific tag; operating hours counter; internal temperature; switching cycles counter; shaft movement in hours	
Supported DeviceIDs	Type of operation	DeviceID
	default	1064
Note	For further information please see the IODD PDF file under "Downloads"	

Operating conditions

Ambient temperature [°C]	-40...85
Storage temperature [°C]	-40...85
Max. relative air humidity [%]	98; (condensation not permissible)
Protection	IP 68; IP 69K

Tests / approvals

EMC	DIN EN 61000-4-2 ESD	4 kV CD
	DIN EN 61000-4-3 HF radiated	10 V/m
	DIN EN 61000-4-4 Burst	2 kV
	DIN EN 61000-4-6 HF conducted	10 V
Vibration resistance	DIN EN 60068-2-6	20 g / 10...1000 Hz half-sine
Shock resistance	DIN EN 60068-2-27	200 g / 11 ms
Continuous shock resistance	DIN EN 60068-2-29	20 g / 6 ms half-sine
MTTF [years]	283	
UL approval	power supply	Class 2

Mechanical data

Weight [g]	382.5
Dimensions [mm]	Ø 42 / L = 89.5
Materials	flange: stainless steel (316L/1.4404); housing: stainless steel (444/1.4521)
Max. starting torque [Nm]	5
Reference temperature torque [°C]	20
Shaft design	hollow shaft open to one side
Shaft diameter [mm]	12
Shaft material	stainless steel (440B/1.4112)
Installation depth of shaft [mm]	22
Max. axial shaft misalignment [mm]	0,5

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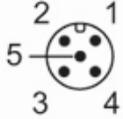
MULTITURN ENCODER WET LINE

Fixing flange

Ø 42 mm

Electrical connection - plug

Connector: 1 x M12; coding: A; Moulded body: stainless steel (316 / 1.4401)



1	UB
2	SSC1.2 / IN
3	GND
4	IO-Link
5	n. c.