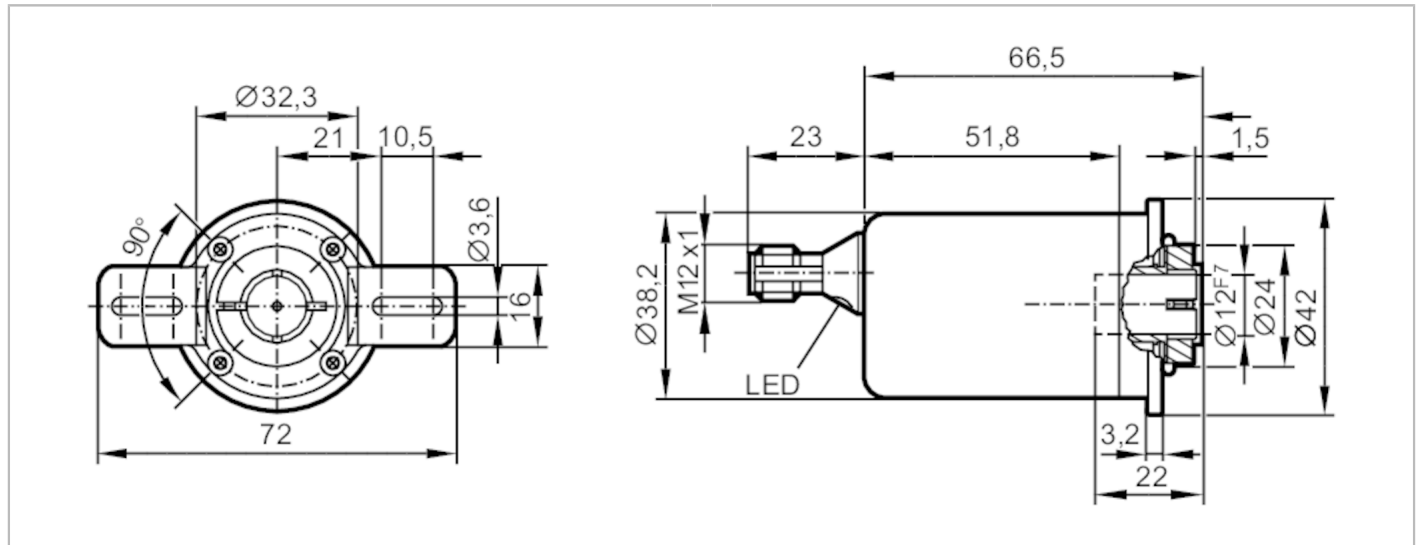


# RMA310



## Absolute multiturn encoder with hollow shaft

MULTITURN ENCODER WET LINE



CE EAC IO-Link

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

# RMA310



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Interfaces		
Communication interface	IO-Link	
Transmission type	COM3 (230,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9 CDV	
Profiles	Identification and Diagnosis; Switching Signal Channel; Measurement Data Channel (high resolution)	
SIO mode	no	
Required master port class	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 at "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	
Mechanical data		
Weight [g]	382.5	
Dimensions [mm]	Ø 42 / L = 89.5	
Material	flange: stainless steel (1.4404 / 316L) ; housing: stainless steel (1.4521 / 444)	
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 (1.4112 / 440B)	
Installation depth/shaft [mm]	22	
Max. axial shaft misalignment [mm]	0,5	

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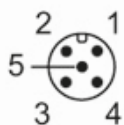


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### Electrical connection - plug

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



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