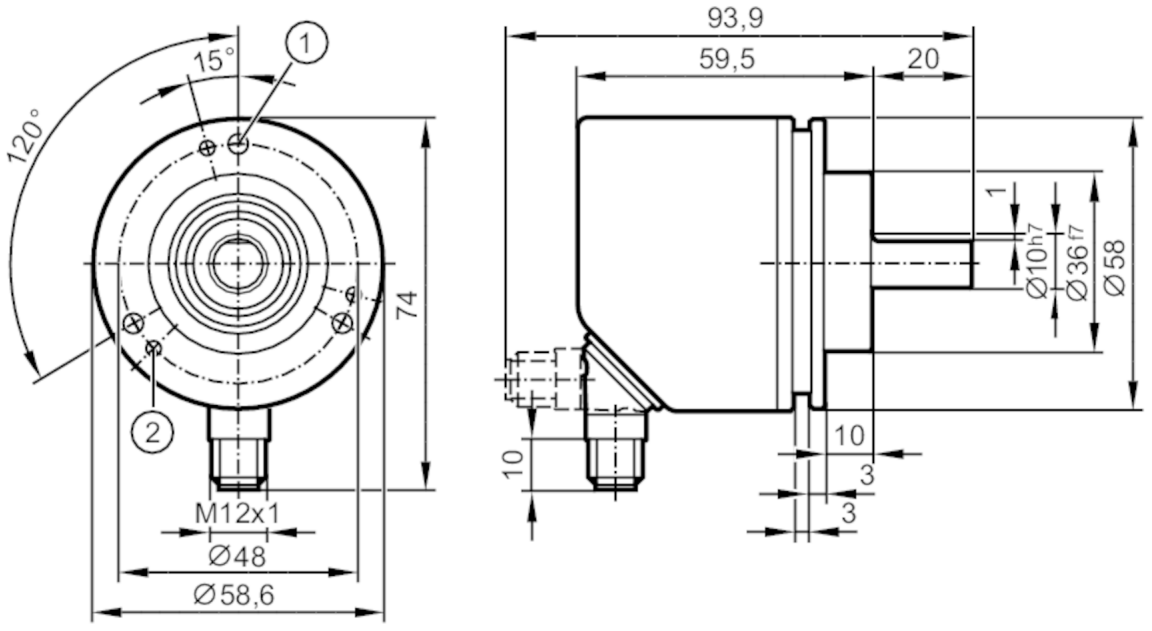
RMV300

Absolute multiturn encoder with solid shaft

MULTITURN ENCODER STANDARD LINE



1 M4 x 0.7 Depth 6 mm
2 M3 x 0.5 Depth 6 mm

Product characteristics		
Resolution		65536 steps; 32768 revolutions; 31 bit
Communication interface		IO-Link
Shaft design		solid shaft
Shaft diameter	[mm]	10
Application		
Function principle		absolute
Revolution type		multiturn
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]	12000
Outputs		
Short-circuit protection		yes
Measuring/setting range		
Resolution		65536 steps; 32768 revolutions; 31 bit
Accuracy / deviations		
Accuracy	[°]	0.1

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Software / programming			
Parameter setting options		preset; zero point; direction of rotation; rotational speed	
Interfaces			
Communication interface		IO-Link	
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	Switching Signal Channel
		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	
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 65; (on the housing: IP 67; on the shaft: IP 65)	
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	10 g / 10...1000 Hz half-sine
Shock resistance		DIN EN 60068-2-27	100 g 6 ms
Continuous shock resistance		DIN EN 60068-2-29	10 g / 16 ms half-sine
Vibration resistance			30 g (10...1000 Hz)
MTTF	[years]	283	
UL approval		power supply	Class 2
Mechanical data			
Weight	[g]	370.9	
Dimensions	[mm]	Ø 58 / L = 79	
Materials		flange: aluminium; housing: stainless steel (444/1.4521)	
Max. starting torque	[Nm]	1	
Reference temperature torque	[°C]	20	

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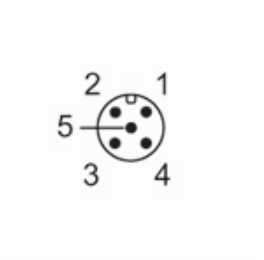
Shaft design		solid shaft
Shaft diameter	[mm]	10
Shaft material		stainless steel
Max. shaft load axial (at the shaft end)	[N]	40
Max. shaft load radial (at the shaft end)	[N]	110
Fixing flange		clamping flange

Electrical connection - plug

Connector: 1 x M12, radial, can also be used axially; coding: A; Moulded body: stainless steel (316 / 1.4401)



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