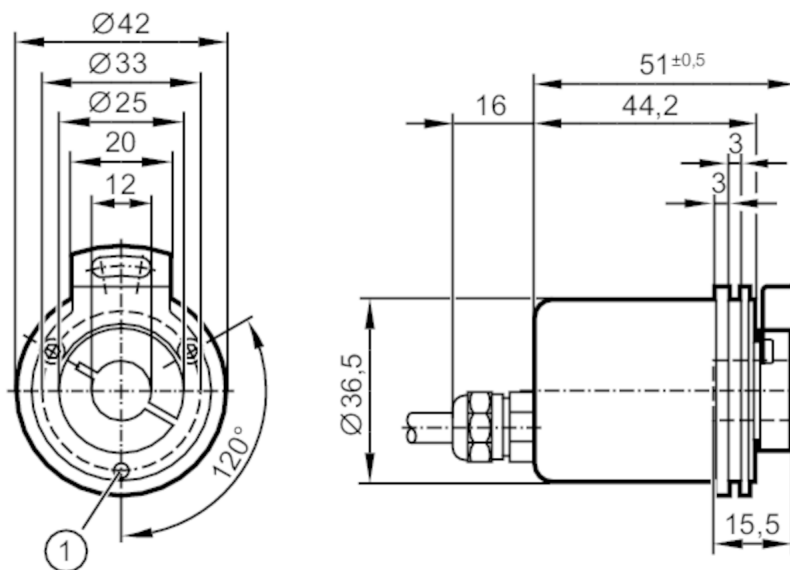


# RM8003



## Absolute multiturn encoder with hollow shaft

RMS4096-S24/L2U



1 M3 x 6



### Product characteristics

Resolution	4096 resolution; 4096 revolutions; 24 bit
Communication interface	SSI data interface
Shaft design	hollow shaft open to one side
Shaft diameter [mm]	12

### Application

Function principle	absolute
Revolution type	multiturn

### Electrical data

Operating voltage [V]	4.5...30 DC
Current consumption [mA]	< 30

### Inputs

Inputs	reversal of direction of rotation; reset to zero
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### Outputs

Code	Gray code; (increasing code values when turned clockwise (seen on the shaft))
Code signal	Clock input; TTL-compatible signals; clock and clock (inv.) from drivers to RS 422; data output; synchronous serial; TTL-compatible signal data and data (inv.)

### Measuring/setting range

Resolution	4096 resolution; 4096 revolutions; 24 bit
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### Interfaces

Communication interface	SSI data interface
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### Operating conditions

Ambient temperature [°C]	-40...85
Max. relative air humidity [%]	98
Protection	IP 65; (on the housing: IP 65; on the shaft: IP 64)



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Tests / approvals		
Shock resistance		< 300 g (6 ms)
Vibration resistance		30 g (10...1000 Hz)
MTTF	[years]	350
Mechanical data		
Weight	[g]	336.5
Dimensions	[mm]	Ø 36.5 / L = 67
Material		flange: aluminum; housing: steel powder-coated
Max. revolution, mechanical	[U/min]	12000
Max. starting torque	[Nm]	3
Reference temperature torque	[°C]	25
Shaft design		hollow shaft open to one side
Shaft diameter	[mm]	12
Shaft material		steel
Max. shaft load axial (at the shaft end)	[N]	40
Max. shaft load radial (at the shaft end)	[N]	110
Remarks		
Remarks		Wires/pins not connected (n.c.) must not be used.
Electrical connection		
Cable: 2 m, PUR; Maximum cable length: 100 m; axial		
white	sensor 0 V	
brown	sensor Ub	
green	clock	
yellow	clock (inv.)	
grey	data	
pink	data (inv.)	
blue	reset to zero	
red	reversal of direction of rotation	
screen	housing	
Diagrams and graphs		
Pulse diagram	<p>1 clock</p> <p>2 data</p>	