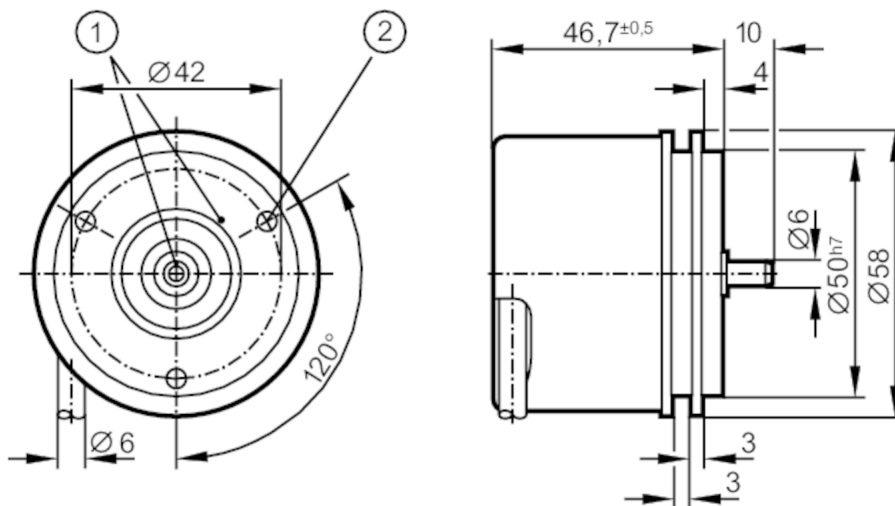




Absolute multiturn encoder with solid shaft

RM-4096-S24/N1A

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- 1 reference mark
- 2 M4 Depth 5 mm



Product characteristics

Resolution	4096 resolution; 4096 steps; 4096 revolutions; 24 bit
Communication interface	SSI data interface
Shaft design	solid shaft
Shaft diameter [mm]	6

Application

Function principle	absolute
Revolution type	multiturn

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 200

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 485; data output; synchronous serial; TTL-compatible signals, data, and data (inv.); incremental signals; 2 sinusoidal incremental signals (A and B) ; phase shifted by 90°; 1 Vss 512 signal periods per revolution

Measuring/setting range

Resolution	4096 resolution; 4096 steps; 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	[%]	75; (briefly: 95 %)
Protection		IP 64
Tests / approvals		
Shock resistance		100 g (6 ms)
Vibration resistance		30 g (55...2000 Hz)
Mechanical data		
Weight	[g]	480
Dimensions	[mm]	Ø 58 / L = 46.7
Materials		aluminium
Max. revolution, mechanical	[U/min]	12000
Max. starting torque	[Nm]	1
Reference temperature torque	[°C]	20
Shaft design		solid shaft
Shaft diameter	[mm]	6
Shaft material		steel (1.4104)
Max. shaft load axial (at the shaft end)	[N]	10
Max. shaft load radial (at the shaft end)	[N]	20
Remarks		
Remarks		Wires/pins not connected (n.c.) must not be used.
Electrical connection		
Cable: 1 m, PUR; Maximum cable length: 100 m; radial, can also be used axially		
blue	sensor (Up)	
black	reversal of direction of rotation	
red	n.c.	
white	sensor 0 V	
green	reset to zero	
brown	n.c.	
brown/green	10...30 V (Up)	
lilac	clock	
yellow	clock inverted	
white/green	0 V (Un)	
screen	housing	
blue / black	B+	
red/black	B-	
grey	data	
green / black	A+	
yellow / black	A-	
pink	data inverted	

Diagrams and graphs

Pulse diagram

