RN6051

Absolute singleturn encoder with solid shaft

RN-4096-S24/L1B

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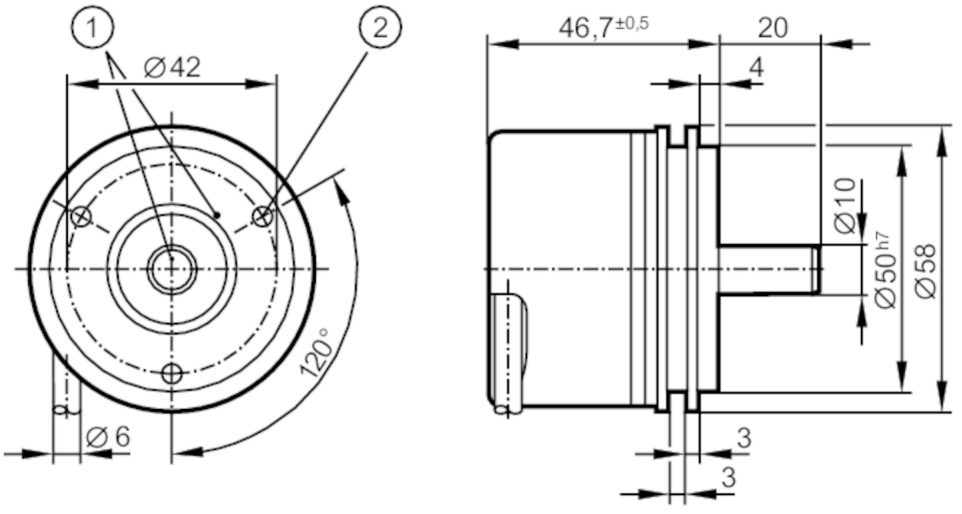

1 reference mark
2 M4 Depth 5 mm

Product characteristics		
Resolution		4096 resolution; 4096 steps; 12 bit
Communication interface		SSI data interface
Shaft design		solid shaft
Shaft diameter	[mm]	10
Electrical data		
Operating voltage	[V]	10...30 DC
Current consumption	[mA]	< 150
Outputs		
Code		Gray code; (increasing code values when turned clockwise (seen on the shaft))
Code signal		data 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; 12 bit
Interfaces		
Communication interface		SSI data interface
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)

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Vibration resistance		30 g (55...2000 Hz)

Mechanical data

Dimensions	[mm]	Ø 58 / L = 66.7
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]	10
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.

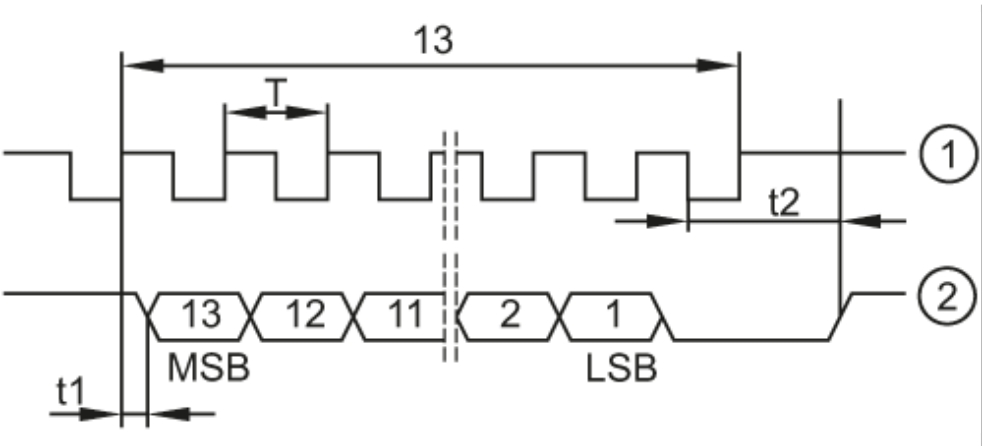
Electrical connection

Cable: 1 m, PUR; Maximum cable length: 150 m; radial, can also be used axially

black	n.c.
red	n.c.
green	n.c.
brown	n.c.
brown/green	10...30V (Up)
lilac	clock
yellow	clock inverted
screen	housing
white/green	0V (Un)
blue / black	B+
red/black	B-
grey	data
green / black	A+
yellow / black	A-
pink	data inverted

Diagrams and graphs

Pulse diagram



1 clock

2 data