RV1003

Incremental encoder with solid shaft

RV-0100-I05/L2

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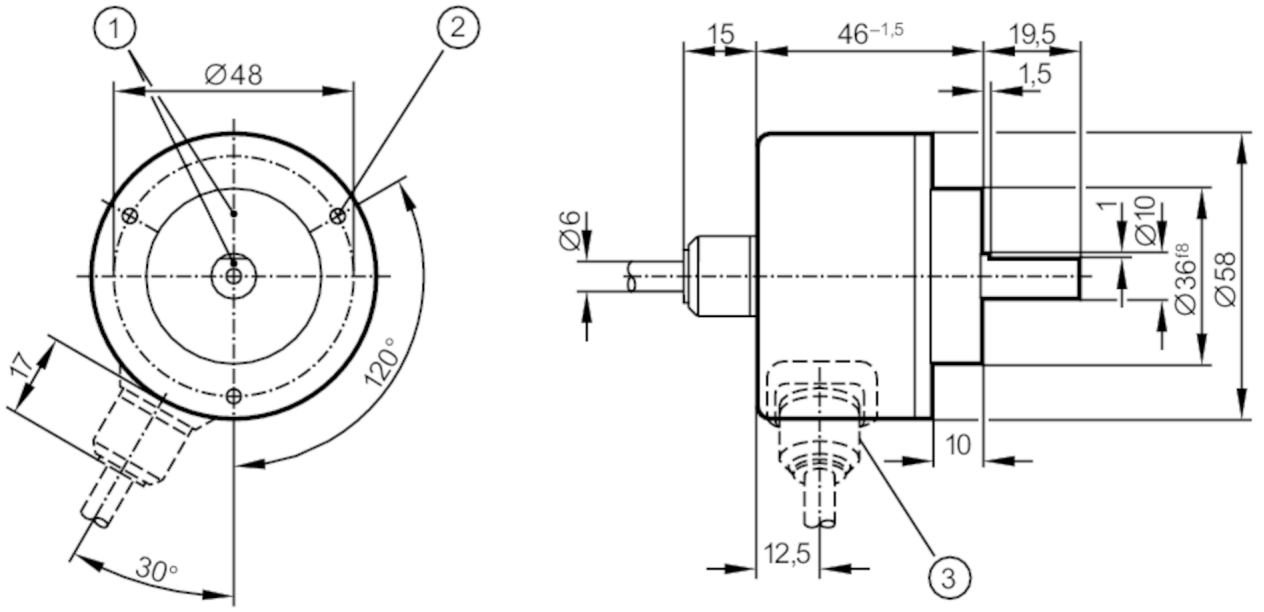

1 reference mark
2 M3 Depth 5 mm

Product characteristics		
Resolution		100 resolution
Shaft design		solid shaft
Shaft diameter	[mm]	10
Electrical data		
Operating voltage tolerance	[%]	10
Operating voltage	[V]	5 DC
Current consumption	[mA]	150
Outputs		
Electrical design		TTL
Max. current load per output	[mA]	20
Switching frequency	[kHz]	300
Phase difference A and B	[°]	90
Measuring/setting range		
Resolution		100 resolution
Operating conditions		
Ambient temperature	[°C]	-30...100
Note on ambient temperature		for firmly laid cable: -30 °C
Storage temperature	[°C]	-30...100
Max. relative air humidity	[%]	98
Protection		IP 64

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Tests / approvals		
Shock resistance		100 g (6 ms)
Vibration resistance		10 g (55...2000 Hz)

Mechanical data		
Dimensions	[mm]	Ø 58 / L = 46
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

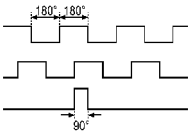
Electrical connection

Cable: 2 m, PUR; axial

brown	A
green	A inverted
grey	B
pink	B inverted
red	0 index
black	0 index inverted
blue	L+ sensor
white	0V sensor
brown/green	L+ (Up)
white/green	0V (Un)
lilac	failure inverted
screen	housing

Diagrams and graphs

Pulse diagram



direction of rotation clockwise (looking at the shaft)