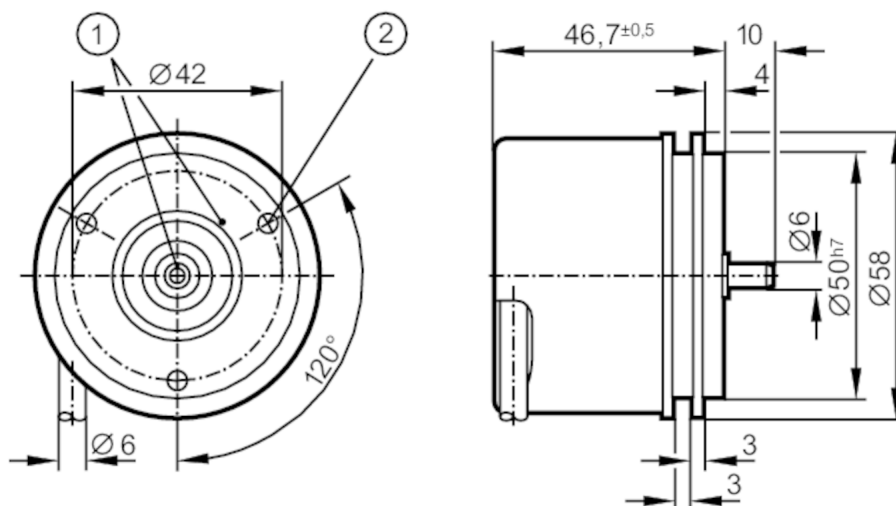# RU1033

Incremental encoder with solid shaft

RU-2000-I05/L2

phase-out article

Alternative articles: RUP500 + E12402
When selecting an alternative article and accessories please note that technical data may differ!

1   reference mark
2   M4 Depth 5 mm

Product characteristics	
Resolution	2000 resolution
Shaft design	solid shaft
Shaft diameter [mm]	6

Application	
Function principle	incremental

Electrical data	
Operating voltage tolerance [%]	10
Operating voltage [V]	5 DC
Current consumption [mA]	< 120

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	2000 resolution

Operating conditions	
Ambient temperature [°C]	-40...100
Note on ambient temperature	for firmly laid cable: -40 °C

RU1033

Incremental encoder with solid shaft

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Max. relative air humidity [%]	98
Protection	IP 64; (on the housing: IP 67; on the shaft: IP 64)

Tests / approvals		
Shock resistance	200 g	
Vibration resistance	30 g	
MTTF [ANN]	190	
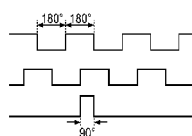
Mechanical data	
Weight [g]	492
Dimensions [mm]	Ø 58 / L = 46.7
Materials	aluminium
Max. revolution, mechanical [U/min]	16000
Max. starting torque [Nm]	1
Reference temperature torque [°C]	20
Shaft design	solid shaft
Shaft diameter [mm]	6
Shaft material	steel (1.4104)
Max. shaft load axial (at the shaft end) [N]	10
Max. shaft load radial (at the shaft end) [N]	20
Fixing flange	synchro-flange

Electrical connection
Cable: 2 m, PUR; Maximum cable length: 100 m; radial, can also be used axially

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)