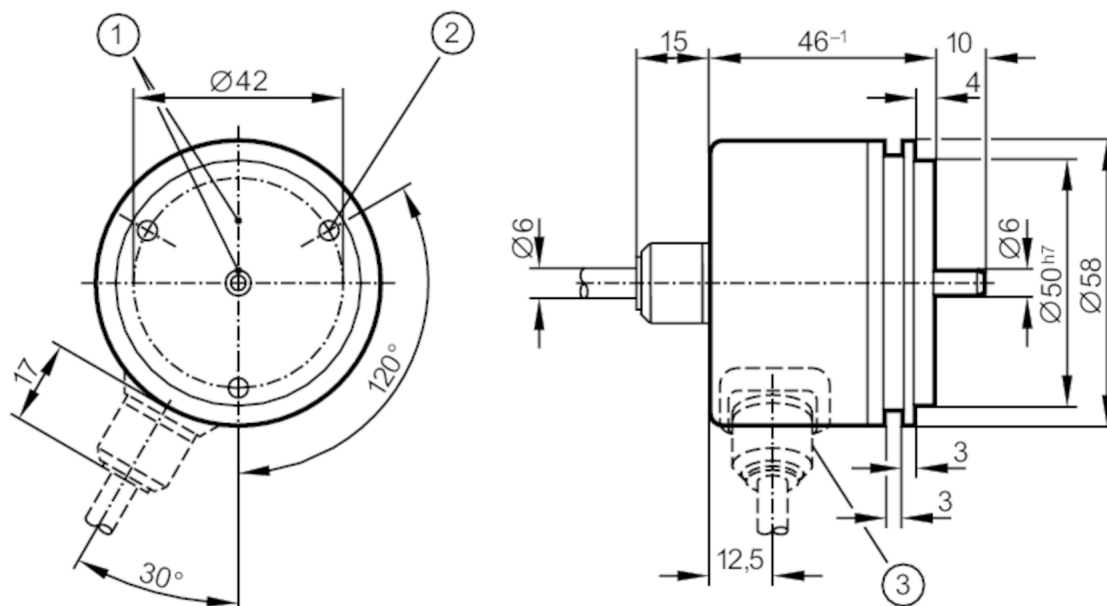# RU1048

Incremental encoder with solid shaft

RU-9000-I05/L2

Article no longer available - archive entry

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	9000 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]	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	9000 resolution
Operating conditions	
Ambient temperature [°C]	-30...100

RU1048

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Note on ambient temperature	for firmly laid cable: -30 °C
Storage temperature [°C]	-30...100
Max. relative air humidity [%]	98
Protection	IP 64

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

| **Mechanical data**	
Weight [g]	487.6
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]	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; 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
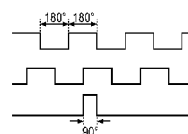
direction of rotation clockwise (looking at the shaft)