

Incremental encoder with solid shaft

RU-1250-I05/P1E

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- 1 reference mark
- 2 M4 Depth 5 mm



Product characteristics

Resolution	1250 resolution
Shaft design	solid shaft
Shaft diameter [mm]	6

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	1250 resolution
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Operating conditions

Ambient temperature [°C]	-20...100
Storage temperature [°C]	-30...100
Max. relative air humidity [%]	98
Protection	IP 66



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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]	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: 1 m, PUR; axial

Connector: 1 x M23 (ifm 1001.1)

pink (1)	B inverted
blue (2)	+5V sensor
red (3)	0 index
black (4)	0 index inverted
brown (5)	A
green (6)	A inverted
lilac (7)	failure inverted
grey (8)	B
pin 9	n.c.
white/green (10)	0V (Un)
white (11)	0V sensor
brown/green (12)	+5V (Up)
screen	housing

Diagrams and graphs

Pulse diagram

direction of rotation clockwise (looking at the shaft)