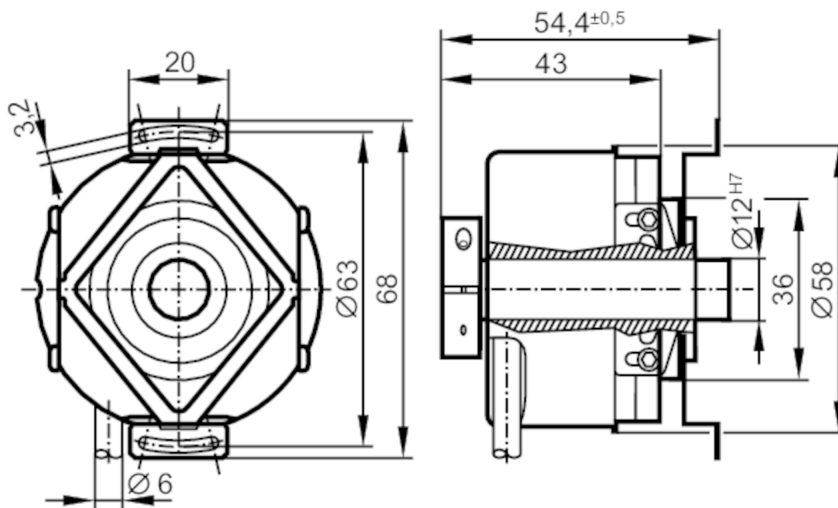


Incremental encoder with hollow shaft

RO-1024-V05/N12

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Product characteristics

Resolution	1024 resolution
Shaft design	continuous hollow shaft
Shaft diameter [mm]	12

Application

Function principle	incremental
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Electrical data

Operating voltage tolerance [%]	10
Operating voltage [V]	5 DC
Current consumption [mA]	< 150

Outputs

Electrical design	1 Vss; (sinusoidal)
Switching frequency [kHz]	300
Phase difference A and B [°]	90

Measuring/setting range

Resolution	1024 resolution
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Operating conditions

Ambient temperature [°C]	-40...100
Max. relative air humidity [%]	98
Protection	IP 64; (on the housing: IP 66; on the shaft: IP 64)

Tests / approvals

Shock resistance	200 g (2 ms) / 100 g (6 ms)
Vibration resistance	30 g (55...2000 Hz)



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Mechanical data		
Weight	[g]	445
Dimensions	[mm]	Ø 58 / L = 54.4
Materials		aluminium
Max. revolution, mechanical	[U/min]	12000; (when using both shaft clamping rings)
Max. starting torque	[Nm]	2.5
Reference temperature torque	[°C]	20
Shaft design		continuous hollow shaft
Shaft diameter	[mm]	12
Shaft fit		H7
Shaft material		stainless steel
Installation depth of shaft	[mm]	10
Max. axial shaft misalignment	[mm]	1; (max. radial shaft alignment: ± 0,05 mm)

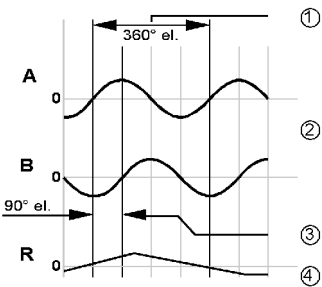
Electrical connection

Cable: 1 m, PUR; radial, can also be used axially

pink	B inverted
blue	+5V sensor
red	0 index
black	0 index inverted
brown	A
green	A inverted
lilac	failure inverted
grey	B
brown/green	+5V Up
white/green	0V Un
white	0V sensor
Screen	housing

Diagrams and graphs

Pulse diagram



- 1 signal period
- 2 two sinusoidal signals A und B B following A when turned clockwise (seen on the shaft)
signal amplitude 0.8...1.2 Vss / Z0 = 120 Ω
- 3 phase difference
- 4 reference mark signal