

RO1364

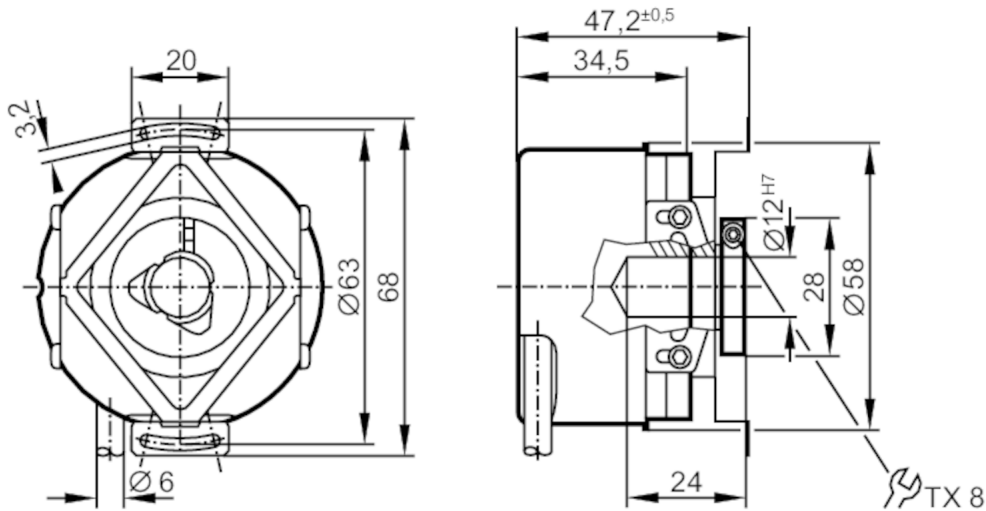


Incremental encoder with hollow shaft

RO-2048-I05/N1U

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Product characteristics

Resolution	2048 resolution
Shaft design	hollow shaft open to one side
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]	< 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	2048 resolution
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Operating conditions

Ambient temperature [°C]	-40...100
Max. relative air humidity [%]	98
Protection	IP 64; (on the housing: IP 67; on the shaft: IP 64)



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Tests / approvals		
Shock resistance		200 g
Vibration resistance		30 g
MTTF	[years]	190
Mechanical data		
Weight	[g]	448.2
Dimensions	[mm]	Ø 58 / L = 35.5
Materials		aluminium
Max. revolution, mechanical	[U/min]	12000
Max. starting torque	[Nm]	1
Reference temperature torque	[°C]	20
Shaft design		hollow shaft open to one side
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)
Remarks		
Notes		discontinued article
Electrical connection		
Cable: 1 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	<p>The diagram shows three waveforms over time. The top waveform is a square wave labeled 'Output A'. The middle waveform is a square wave labeled 'Output B', which is phase-shifted by 180 degrees relative to Output A. The bottom waveform is a single narrow pulse labeled '0 index', which occurs at a specific point in the cycle. The phase shift between A and B is indicated as 180° ± 80°.</p>	
	<p>Output A</p> <p>Output B</p> <p>0 index</p>	

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