

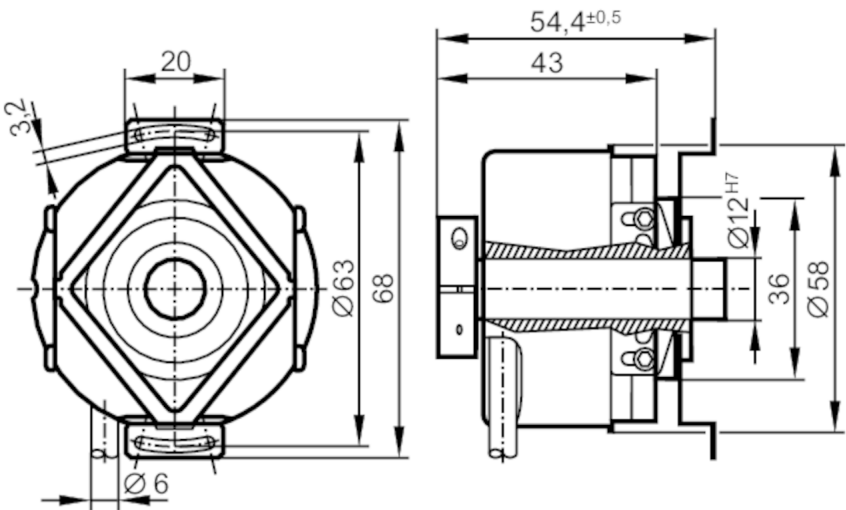
RO1375

Incremental encoder with hollow shaft

RO-1024-V05/N12



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Application		
Function principle		incremental
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 und B	[°]	90
Measuring/setting range		
Resolution		1024 resolution
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)
MTTF	[years]	190

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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)
Remarks		
Notes		discontinued article
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	

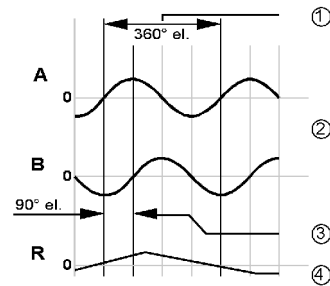


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Diagrams and graphs

Pulse diagram



1 signal period

2 two sinusoidal signals A und B B following A when turned clockwise (seen on the shaft)
signal amplitude $0.8 \dots 1.2 V_{ss} / Z_0 = 120 \Omega$

3 phase difference

4 reference mark signal

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