

**SERIES:** ACZ16

**DESCRIPTION:** mechanical incremental encoder

## ELECTRICAL SPECIFICATIONS

parameter	conditions/description
output waveform	square wave
output signals	A, B phase
current consumption	0.5 mA
output phase difference	T1, T2, T3, T4 $\geq$ 3.5 ms @ 60 rpm (see output waveform)
supply voltage	5 V dc max.
output resolution	12, 24 ppr
insulation resistance	50 V dc, 100 M $\Omega$
withstand voltage	50 V ac

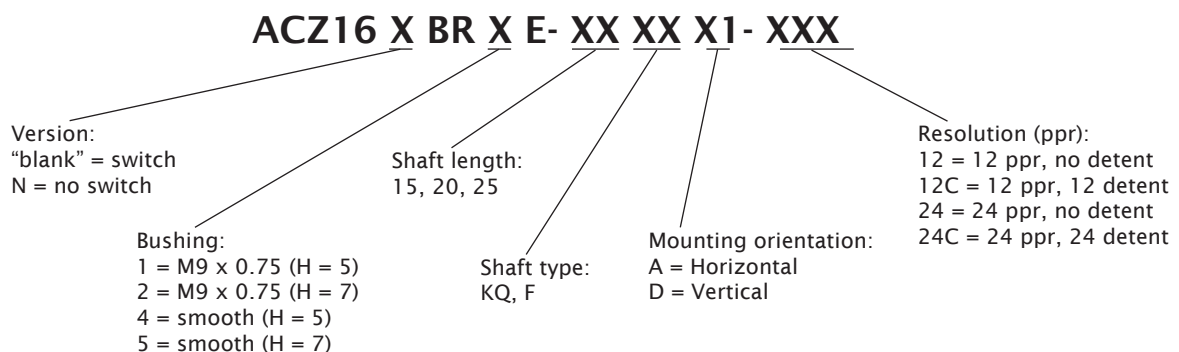
## MECHANICAL SPECIFICATIONS

parameter	conditions/description	min	nom	max	units
shaft load	axial			7	kgf
rotational torque	with detent click	50		130	gf·cm
	without detent click	90		210	gf·cm
rotational life				100,000	cycles

## ENVIRONMENTAL SPECIFICATIONS

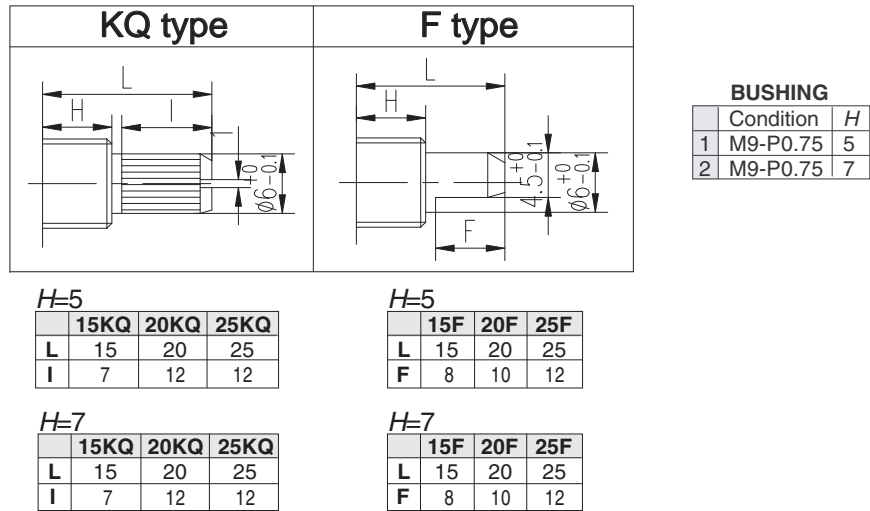
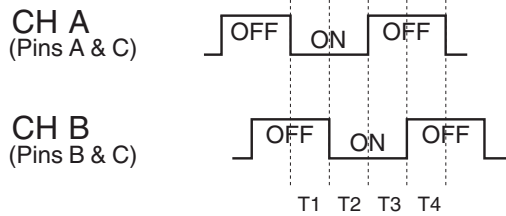
parameter	conditions/description	min	nom	max	units
operating temperature		-10		65	$^{\circ}$ C
storage temperature		-40		75	$^{\circ}$ C
humidity		85			% RH
vibration	0.75 mm max. travel for 2 hours	10		55	Hz

## PART NUMBER KEY

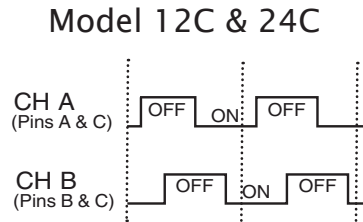
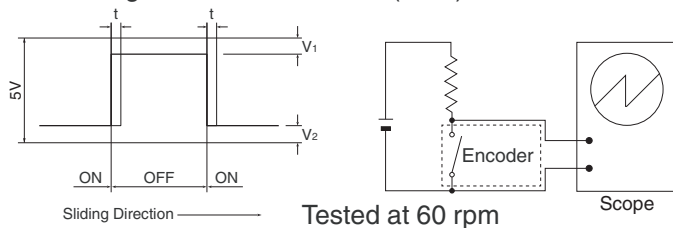
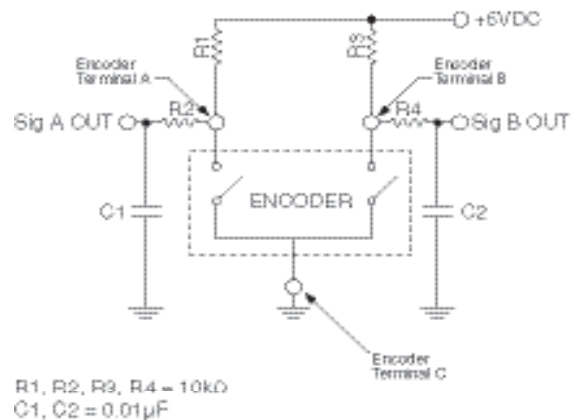


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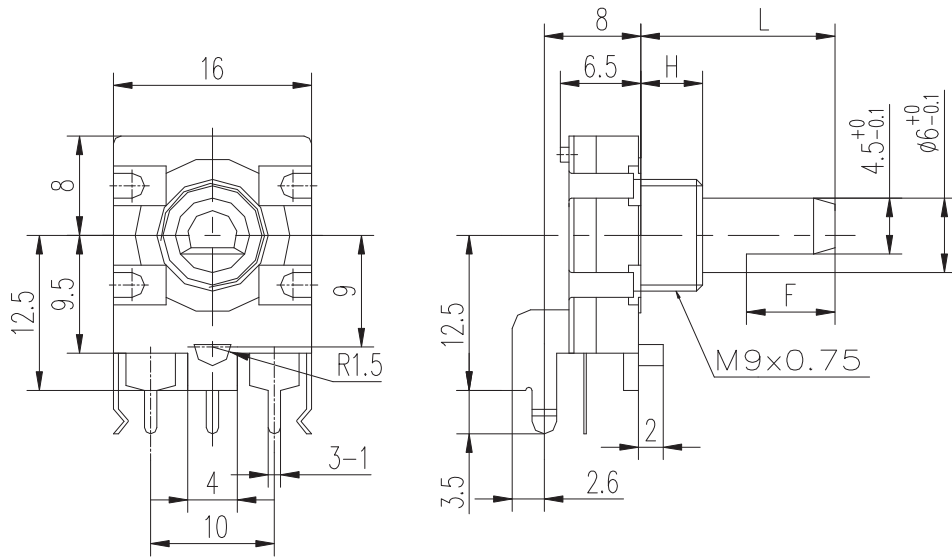
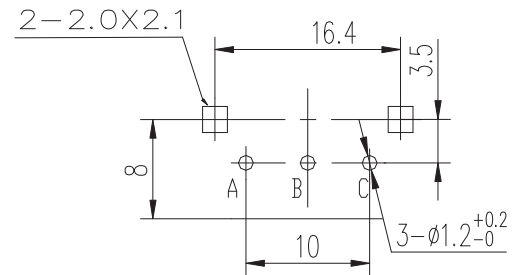
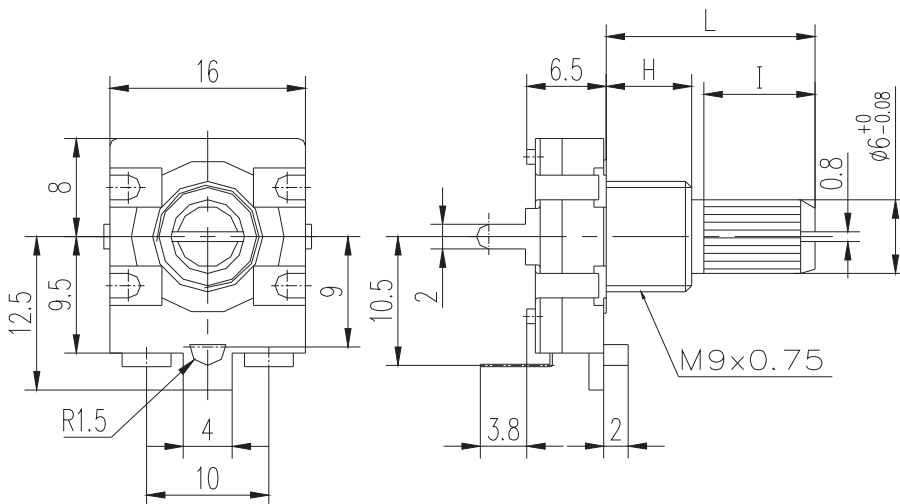
**SHAFT OPTIONS**

**OUTPUT WAVEFORM**


CW direction (@ 60 rpm)

**DETENT POSITIONS**

**SLIDING NOISE**
 $t = \text{Masking time to avoid chatter (5mS)}$   $V_1 = V_2 = 1V \text{ max.}$ 

**SUGGESTED FILTER**


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**MECHANICAL DRAWING (horizontal)**

**PCB LAYOUT**

**MECHANICAL DRAWING (vertical)**

**PCB LAYOUT**
