

SERIES: ACZ12 | **DESCRIPTION:** MECHANICAL INCREMENTAL ENCODER**ELECTRICAL SPECIFICATIONS**

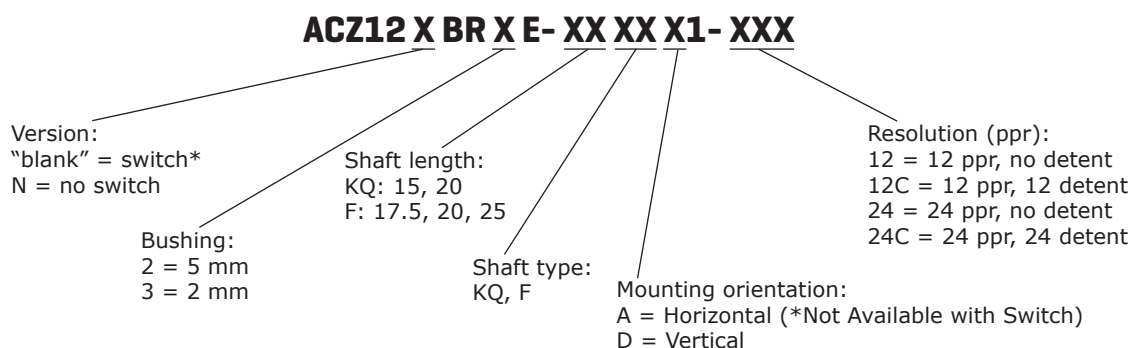
parameter	conditions/description
output waveform	square wave
output signals	A, B phase
current consumption	10 mA
output phase difference	T1, T2, T3, T4 \geq 3.5 ms @ 60 rpm (see output waveform)
supply voltage	12 V dc max.
output resolution	12, 24 ppr
switch rating	12 V dc, 50 mA (ACZ12BRXE models only)
insulation resistance	300 V dc, 100 M Ω
withstand voltage	300 V ac

MECHANICAL SPECIFICATIONS

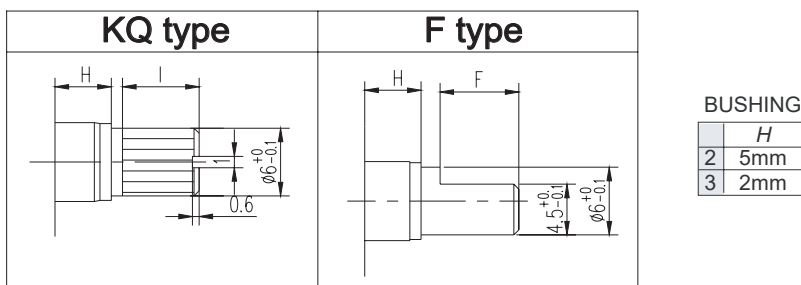
parameter	conditions/description	min	nom	max	units
shaft load	axial			3	kgf
rotational torque	with detent click without detent click	30 60	80	200 100	gf•cm gf•cm
push switch operational force	(ACZ12BRXE models only)	300		900	gf•cm
push switch life	(ACZ12BRXE models only)			50,000	
rotational life				30,000	cycles

ENVIRONMENTAL SPECIFICATIONS

parameter	conditions/description	min	nom	max	units
operating temperature		-10		75	°C
storage temperature		-20		85	°C
humidity		85			% RH
vibration	0.75 mm max. travel for 2 hours	10		55	Hz

PART NUMBER KEY

SHAFT OPTIONS



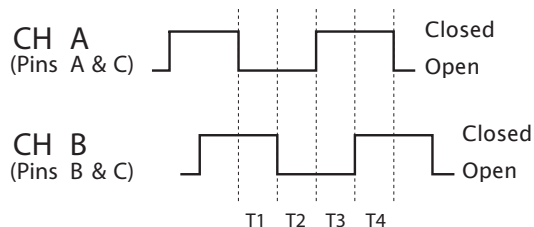
H= 2 or 5 (mm)

	20KQ	15KQ
L	20	15
I	7	5

H= 2 or 5 (mm)

	25F	20F	17F
L	25	20	17.5
F	12	7	5

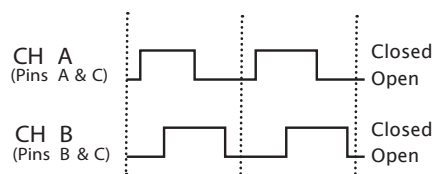
OUTPUT WAVEFORM



CW direction (@ 60 rpm)

DETENT POSITIONS

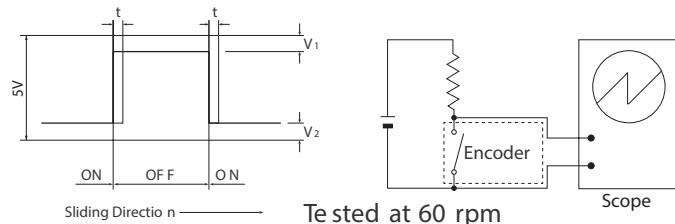
Model 12C & 24C



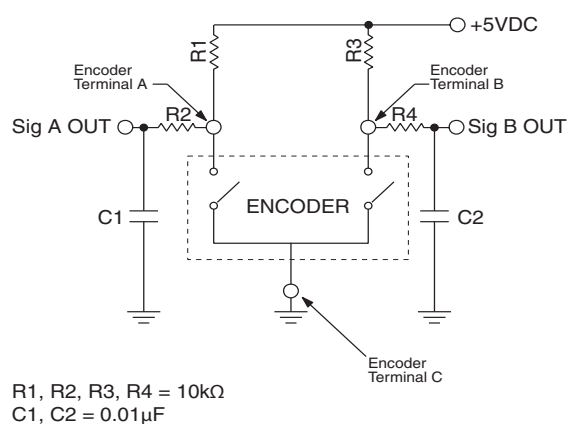
CW direction →

SLIDING NOISE

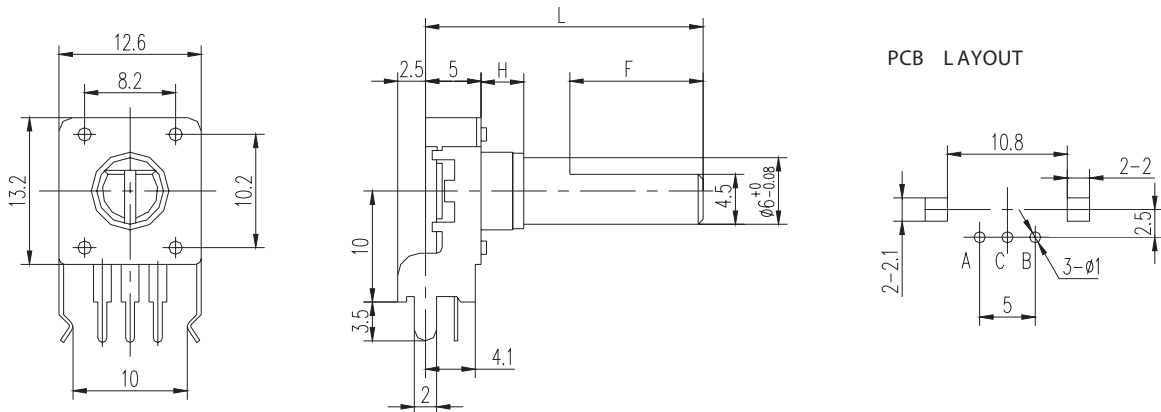
t = Masking time to avoid chatter (5mS) $V_1 = V_2 = 1V$ max.



SUGGESTED FILTER

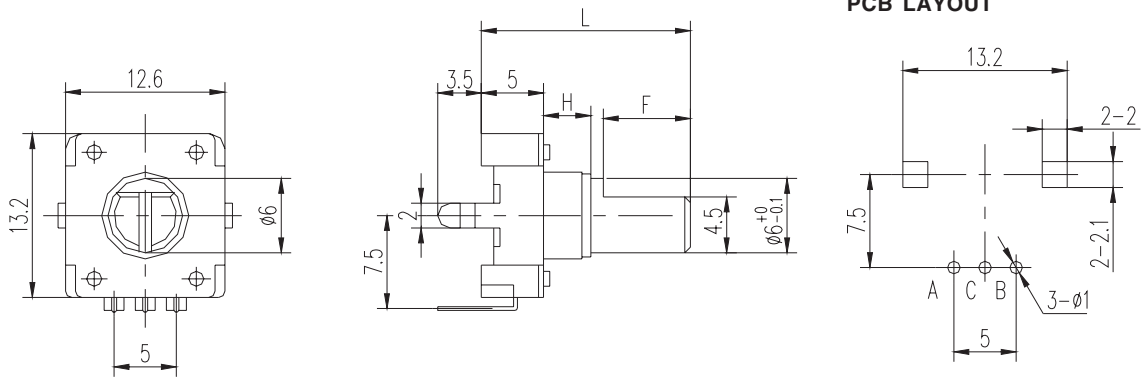


MECHANICAL DRAWING (horizontal)

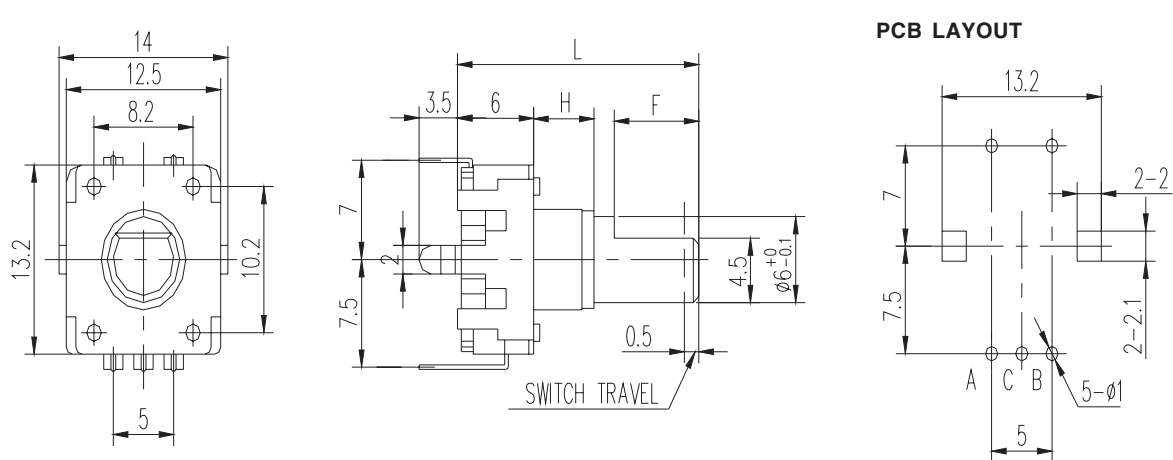


MECHANICAL DRAWING (vertical)

ACZ12NBRXE



ACZ12BRXE



REVISION HISTORY

rev.	description	date
1.0	initial release	10/30/2009
1.01	brand update	10/04/2019

The revision history provided is for informational purposes only and is believed to be accurate.

CUI DEVICES

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