

SERIES: ACZ09 | **DESCRIPTION:** MECHANICAL INCREMENTAL ENCODER**ELECTRICAL SPECIFICATIONS**

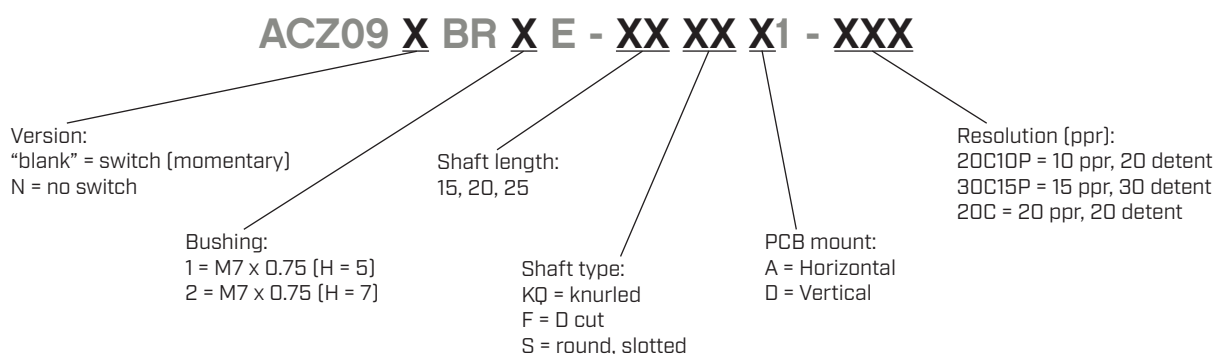
parameter	conditions/description	min	typ	max	units
output waveform	square wave				
output signals	A, B phase				
current consumption	10 mA				
output phase difference	T1, T2, T3, T4 ≥ 3.5 ms @ 60 rpm				
supply voltage	5 V dc max.				
output resolution	10, 15, 20 ppr				
switch rating	12 V dc, 50 mA (ACZ09BRXE models only)				
insulation resistance	100 MΩ, 300 V dc, 1 min.				
withstand voltage	300 V ac, 1 minute; no arc, damage or dielectric breakdown				

MECHANICAL SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
shaft load	axial			8	kgf
rotational torque	with detent click	60	140	220	gf•cm
	without detent click	60	80	100	gf•cm
push switch operational force	[ACZ09BRXE models only]	300		1,500	gf•cm
push switch life	[ACZ09BRXE models only]			50,000	cycles
rotational life				30,000	cycles

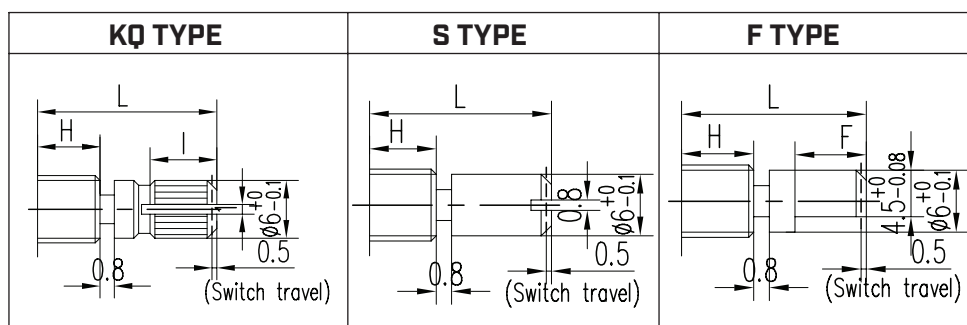
ENVIRONMENTAL SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
operating temperature		-10		75	°C
storage temperature		-20		75	°C
humidity		0		95	% RH
vibration	0.75 mm max. travel for 2 hours	10		55	Hz

PART NUMBER KEY

Replacement Hardware:
M7x0.75 Nut: 071-0068R
Washer: 071-0069R

SHAFT OPTIONS (VERSIONS WITH SWITCH)

**H=5**

	15KQ	20KQ	25KQ
L	15	20	25
I	7	8.5	12

H=5

	15S	20S	25S
L	15	20	25

H=5

	15F	20F	25F
L	15	20	25
F	8	12	12

H=7

	15KQ	20KQ	25KQ
L	15	20	25
I	5	8.5	10

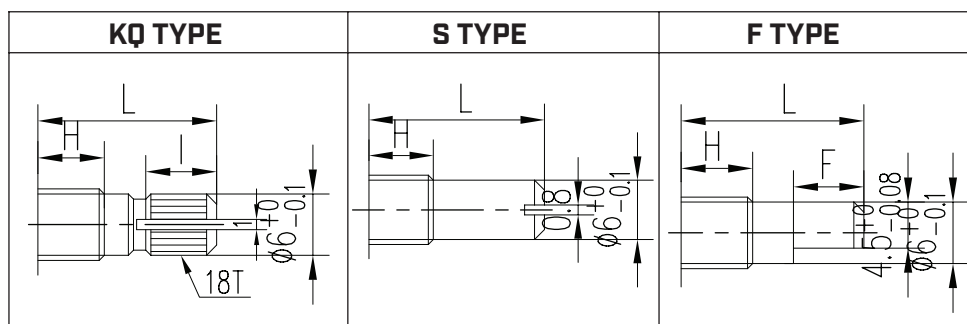
H=7

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	15S	20S	25S
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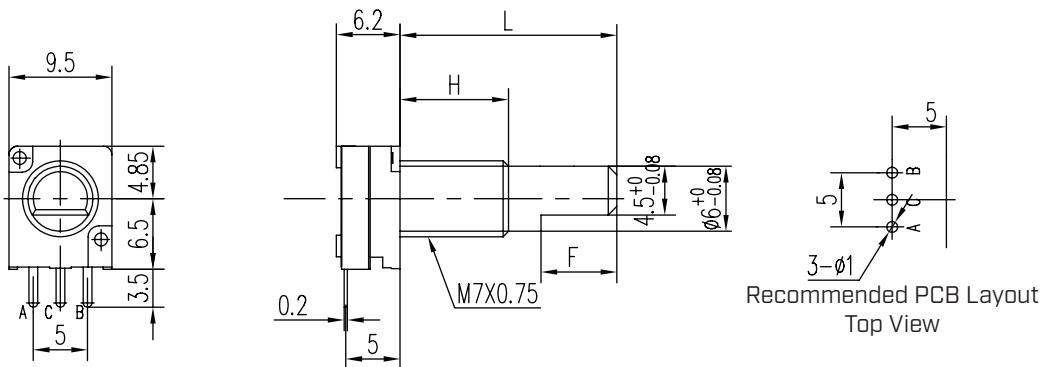
H=7

	15F	20F	25F
L	15	20	25
F	5	12	12

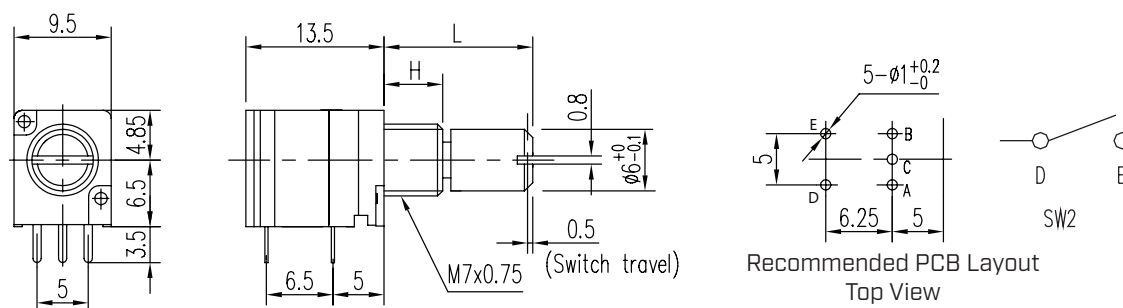
MECHANICAL DRAWING (HORIZONTAL)

units: mm
tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
Unless otherwise noted

ACZ09NBRXE



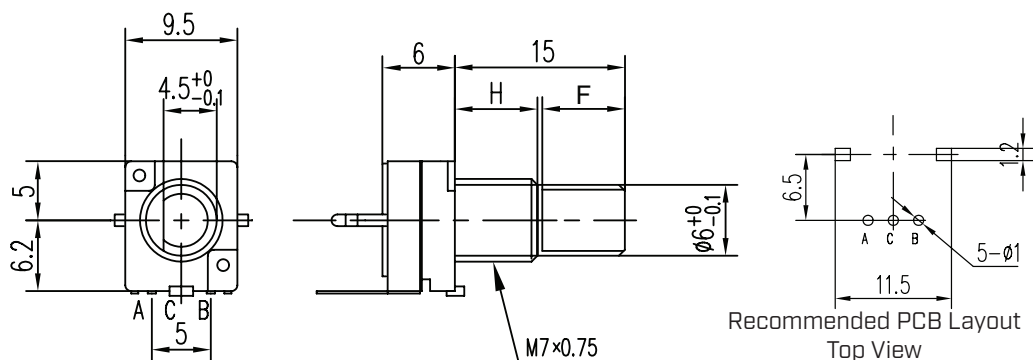
ACZ09BRXE



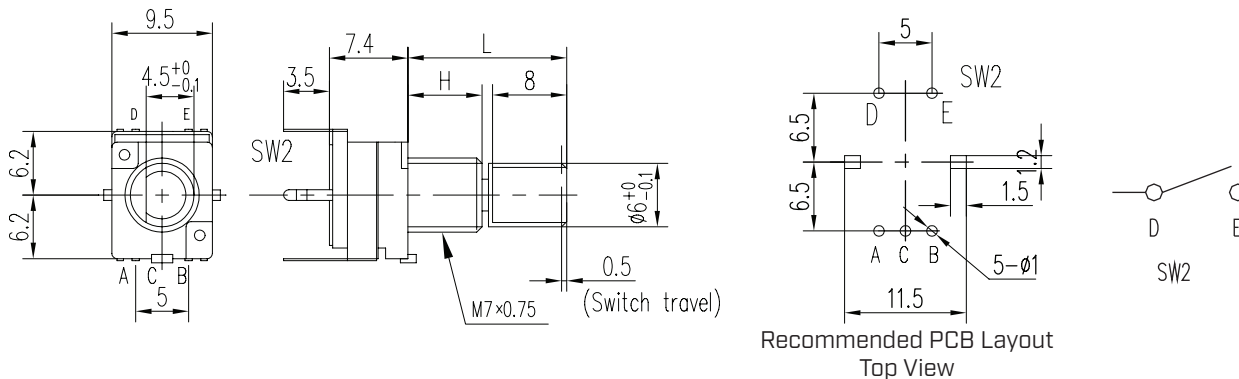
MECHANICAL DRAWING (VERTICAL)

units: mm
tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
Unless otherwise noted

ACZ09NBRXE



ACZ09BRXE



REVISION HISTORY

rev.	description	date
1.0	initial release	10/30/2009
1.01	brand update	10/04/2019
1.02	updated datasheet	06/15/2020
1.03	updated datasheet	08/10/2021
1.04	logo, datasheet style update	09/08/2022

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



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[ACZ09BR2E-20KQA1-20C10P](#) [ACZ09BR2E-20KQA1-30C15P](#) [ACZ09BR1E-15FA1-30C15P](#) [ACZ09BR2E-15FD1-](#)
[20C](#) [ACZ09BR1E-15FD1-20C10P](#) [ACZ09BR1E-15KQA1-20C](#) [ACZ09BR1E-15KQA1-30C15P](#) [ACZ09BR1E-20FA1-](#)
[30C15P](#) [ACZ09BR1E-20FD1-20C10P](#) [ACZ09BR1E-20KQD1-30C15P](#)