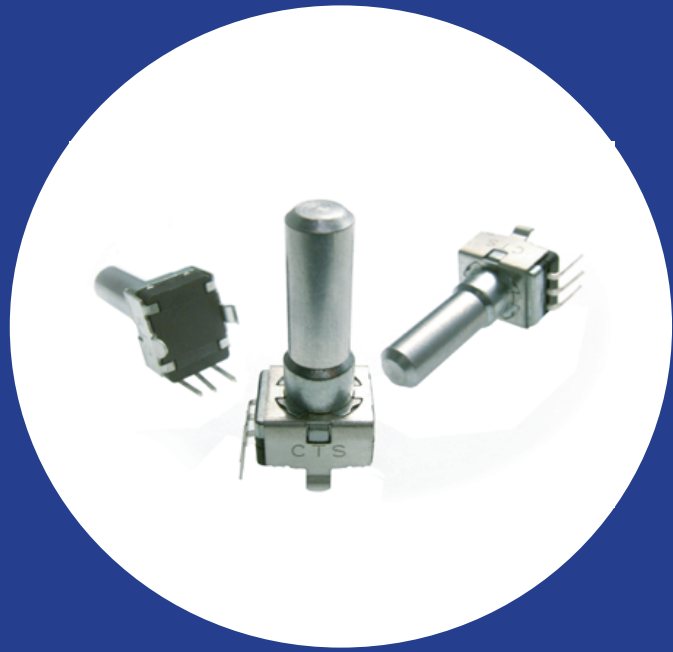


Commercial Miniature 9mm Encoders

Features

- Miniature 9 mm style
- 2 bit quadrature (Graycode)
- Optional momentary switch
- Continuous rotation
- Durable metal shaft
- Available with 20 detents
- RoHS compliant



Electrical and Mechanical Specifications

Encoder Ratings :

Contact Resistance

1Ω maximum

Voltage Rating (each channel)

12 VDC@ 10 mA maximum.

5 VDC@ 1 mA minimum.

Phase Difference (FIG.1)

T₁, T₂, T₃, T₄—5 milliseconds min.
at 60 rpm CW/CCW

Contact Bounce / Chatter (FIG.3)

t₁, t₂, t₃—3 milli seconds max.
at 60 rpm CW/CCW

Detent Points

20 detents available

Rotational Life

50,000cycles

Resolution

20 pulses in 360°

Insulation Resistance

100 megohms between all terminals &
bushing at 250 VDC

Temperature Ratings

Operation : - 30°C to +70°C

Solderability

Flux for 5-10 sec., then dip into a
Solder bath at 260±5°C for 3sec.

Pull and Thrust on Shaft

Withstand a pushing and pulling force of
10kg-f static load applied in axial direction
for 10±1 sec. without physical damage or
electrical degradation.

Momentary SPST Switch Ratings :

Switch Contact Resistance

100 mΩ maximum initial, 200mΩ after life cycles

Switch Rating

16 VDC @0.5A max.

@10mA min.

Switch Bounce

5 milliseconds maximum

Switch Operating Force

600±300 grams(21±11oz) for 0.5mm(.020") travel

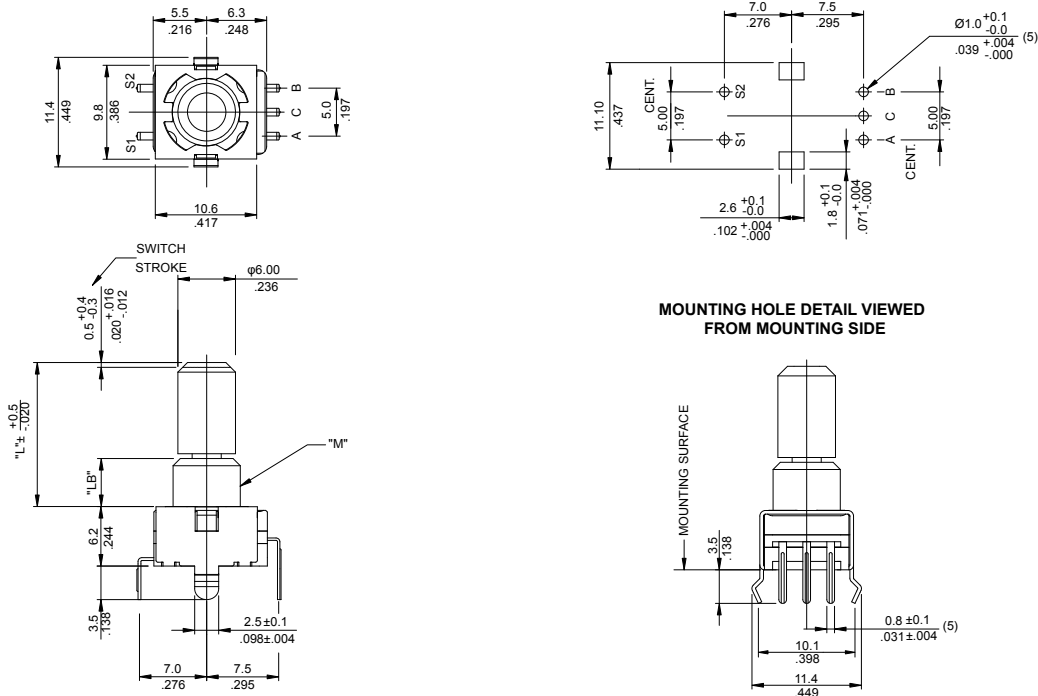
Switch Life

100,000 operations for 0.5mm(.020") travel

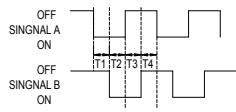
Switch Travel

0.5mm(.020")

TYPE MC-V290 Typical 2-Bit Encoder With Momentary Switch, Perpendicular to PC Board

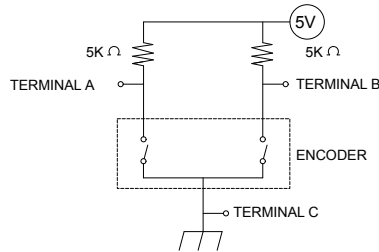


OUTPUT SIGNAL (FIG.1)

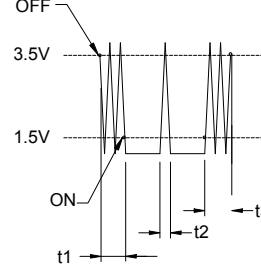


PHASE DIFFERENCE 4mSEC MIN

TYPICAL CIRCUIT (FIG.2)



BOUNCE / CHATTER (FIG.3)



Ordering Information

