

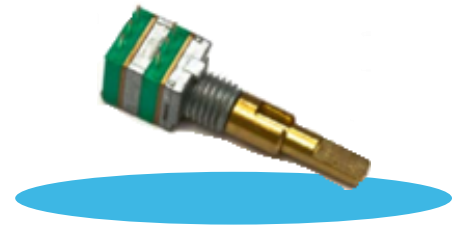
# Rotary Encoder

## Model EN08-x



### Features:

- 8 mm rotary encoder
- 2 bits Gray code
- Incremental / contacting type
- Metal bushing / shaft
- S.P.S.T. momentary switch option
- Dual encoders with concentric shaft
- RoHS compliant



### Description:

These RoHS-compliant rotary encoders feature a compact 8mm design with options of a SPST momentary switch and dual encoders with concentric shafts. This 3-model series is suitable for a wide range of applications including digital audio/video equipment, navigation systems, appliances and machine tools. The encoders have a mechanical-type contact and are sealed to IP50 specifications. The EN08 series feature a 2-bit Gray code. Their versatility and options make them one of the most easily integrated encoder series on the market. The compact 8 mm encoders have 20 detents per revolution with rotational torque of detent rated at a maximum of 1.0 oz-in. The operating life is 50,000 cycles, and the optional SPST momentary switch life is rated at 15,000 actuations. The encoders feature a maximum operating speed of 30 RPMs at 10 pulses per revolution. The closed circuit resistance is rated at a maximum of 3.0 Ohms with a 1.0 mA/5Vdc contact rating. The SPST switch has a maximum operating force of 850 gf and travels up to 0.5 mm. Operating temperatures range from -30°C to +70°C.

### Applications:

- Audio/video control
- Navigation systems
- Test instrumentation
- Speed control
- Menu selection

## Model Styles Available

EN08-N	Side adjust, single encoder
EN08-S	Side adjust, single encoder, with momentary switch
EN08-C	Side adjust, dual encoders, concentric shaft



General Note  
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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## Electrical Specifications

Pulses (per revolution)	10
Encoder closed circuit resistance	3.0 Ohms, max.
Encoder contact rating	1.0 mA / 5 Vdc
Operating current, maximum	1.0 mA
Dielectric strength	200 Vac, 1 minute
Insulation resistance, minimum	100M Ohms
Sliding noise (at 60 RPM)	5 ms max.
Contact bounce (at 15 RPM)	10 ms max.
Operating speed (RPM), maximum	30 RPM
Switch power rating	10 mA / 5 Vdc
Switch contact resistance	100 milliohms
Actual electrical travel, nominal	Continuous

## Mechanical Specifications

Total mechanical travel	Continuous
Detents (per revolution)	0, 20
Rotational torque of detent, maximum	1.0 oz-in
Switch operating force, maximum	850 gf
Switch travel, maximum	0.5 mm

## Environmental Specifications

Operating temperature range	-30°C to +70°C
Operation life	Switch: 15,000 actuations, Encoders: 50,000 cycles

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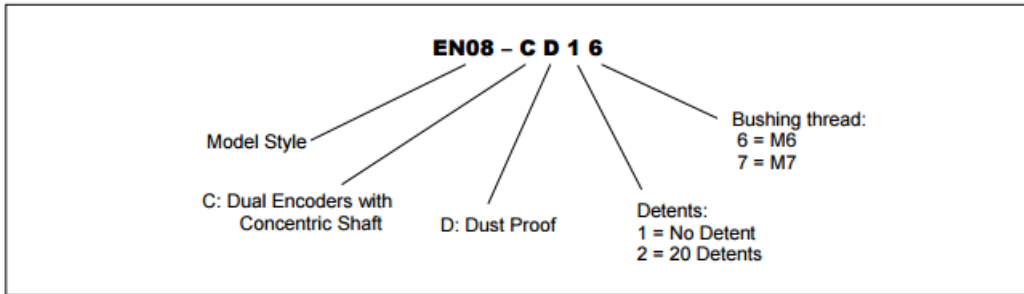
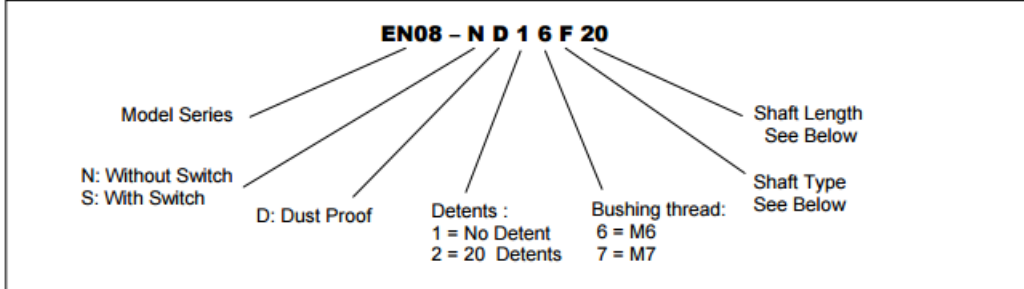
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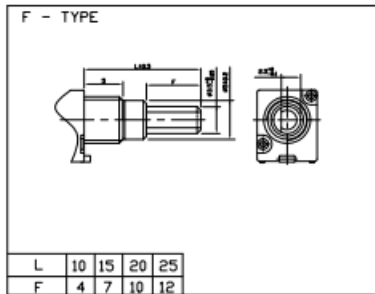
## Model EN08-x



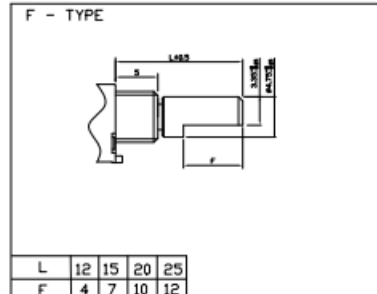
### Ordering Information



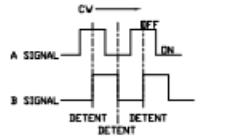
#### Shaft Type for P08x-N



#### Shaft Type for P08x-S



### Circuit Diagram



<sup>2</sup> Contact our customer service for custom designs and features.

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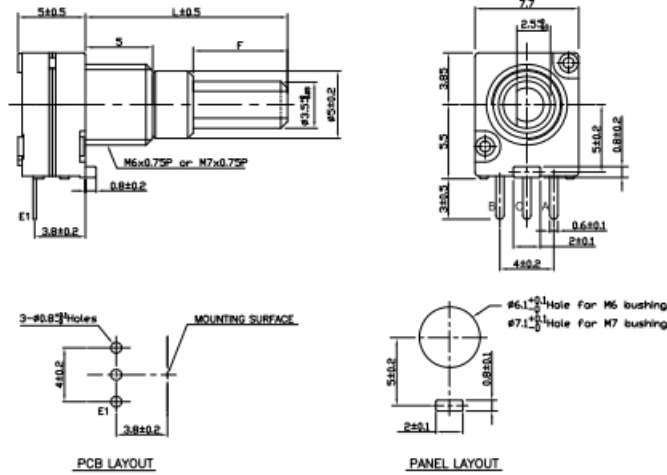
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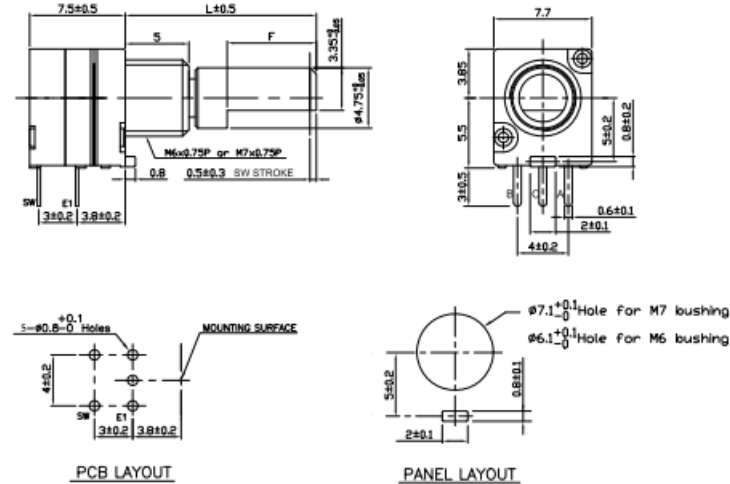


## Outline Drawing

### EN08-N (Single Encoder)



### EN08-S (Single Encoder, with Momentary Switch)



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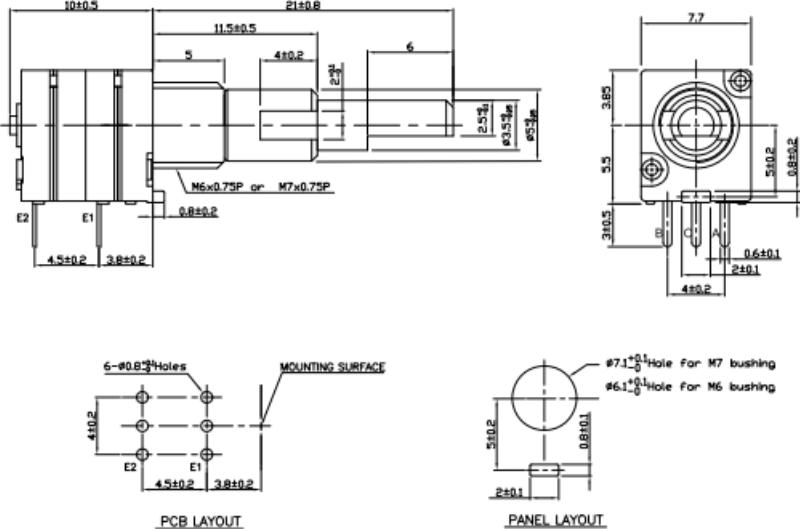
# Rotary Encoder

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## Outline Drawing

EN08-C (Dual Encoders, Concentric shaft)



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