

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# **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



# **Rotary Encoder**

# Model EN08-x



# **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 millohms
Actual electrical travel, nominal	Continuous

## **Mechanical Specifications**

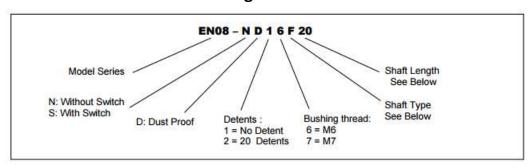
Total mechanical travel	Continuous
Detents (per revolution)	0, 20
Rotational torque of detent, maximum	1.0 oz-in
Switch operating force, maximum	850 gf
Switch travel, maximum	0.5 mm

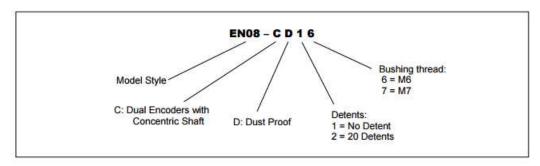
## **Environmental Specifications**

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

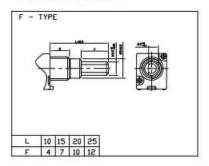


### **Ordering Information**

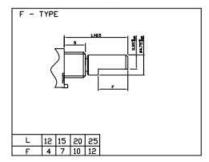




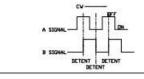
#### Shaft Type for P08x-N



### Shaft Type for P08x-S



### **Circuit Diagram**

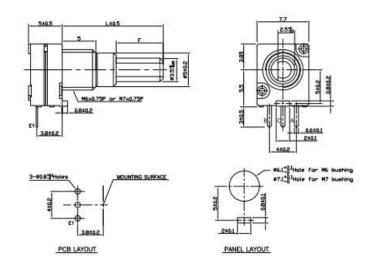


<sup>&</sup>lt;sup>2</sup> Contact our customer service for custom designs and features.

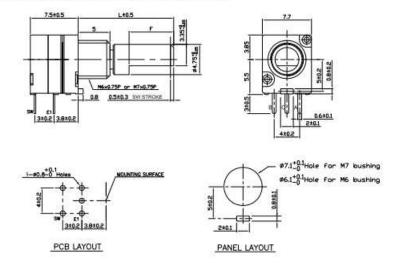


### **Outline Drawing**

### EN08-N (Single Encoder)



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





### **Outline Drawing**

#### EN08-C (Dual Encoders, Concentric shaft)

