



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!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# 12mm Rotary Encoder

## Type DP12 Series

### Type DP12 Series



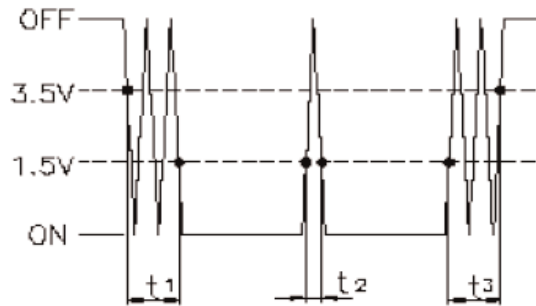
12mm Rotary incremental encoder for use in electronic equipment. Can be supplied with or without switch with customisation to standard options.

#### Key Features

- 12mm Rotary Encoder
- Incremental Type
- Push on Switch Option
- Various Shaft Lengths
- Pulse Options
- Detent Options

### Characteristics - Electrical

<b>Pulses:</b>	12 & 24
<b>Contact Rating:</b>	0.5mA 5VDC
<b>Dielectric Strength:</b>	300VAC / 1mA, 1 minute
<b>Insulation Resistance (min):</b>	100M ohms at 250VAC
<b>Operating Speed (RPM):</b>	60 RPM
<b>Switch Power Rating (where fitted):</b>	5VDC, 10mA (1mA Min)
<b>Switch Contact Resistance:</b>	100m ohm Max
<b>Electrical Travel:</b>	Continuous
<b>Rotational Noise:</b>	t2 = 2.0 ms max (see below)
<b>Chattering:</b>	t1 & t3 = 3.0 ms max (see below)



Code Off area V = 3.5V or more. Code on area V=1.5V or less

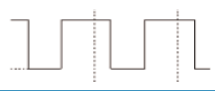
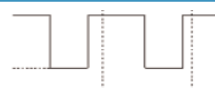
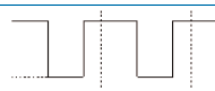
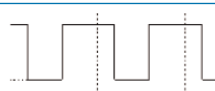
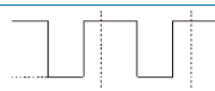
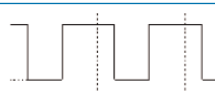
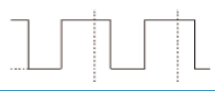
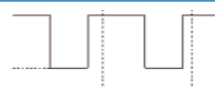
### Characteristics - Mechanical

<b>Total Mechanical Travel:</b>	Continuous
<b>Detents:</b>	0, 12, 24
<b>Switch Operating Force:</b>	500+/- 100gf
<b>Switch Travel:</b>	0.5mm
<b>Shaft Type:</b>	F – Flatted
<b>Shaft Length (from Mounting Surface):</b>	17.5, 20, 22.5, 25

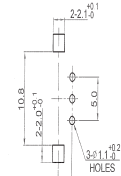
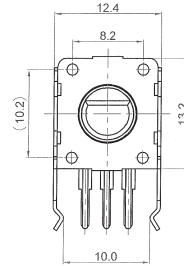
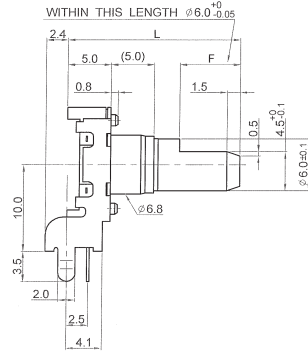
### Characteristics - Environmental

<b>Operating Temperature</b>	-30 ~ +70 degrees C
<b>Rotational Life</b>	15,000 Cycles

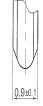
### Output Signal Format

Shaft Rotational Direction	Signal	Format
Clockwise	A (Terminal A-C)	OFF  ON 
	B (Terminal B-C)	OFF  ON 
Anticlockwise	A (Terminal A-C)	OFF  ON 
	B (Terminal B-C)	OFF  ON 

### Dimensions DP12H

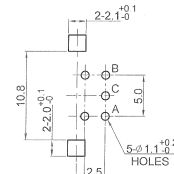
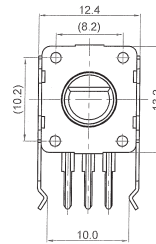
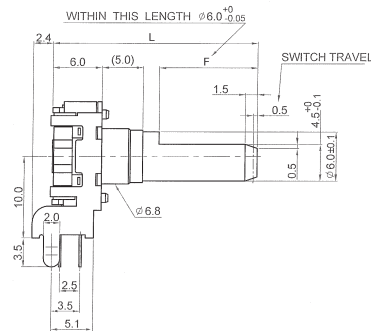


MOUNTING HOLES DETAIL  
VIEWED FROM MOUNTING SIDE  
P.C.B. t=1.6mm



DETAIL OF TERMINALS

### DP12SH

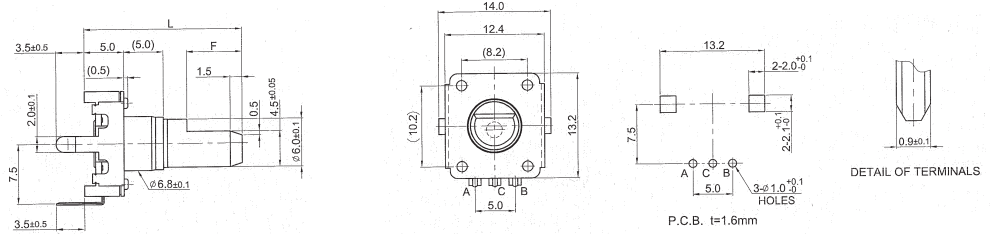


MOUNTING HOLES DETAIL  
VIEWED FROM MOUNTING SIDE  
P.C.B. t=1.6mm

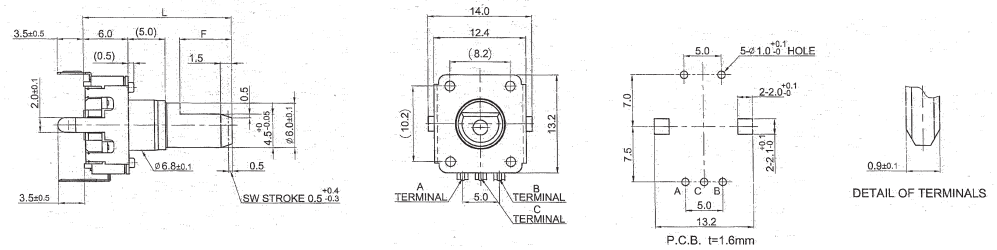


DETAIL OF TERMINALS

### Dimensions DP12V



### DP12SV



### Shaft Length

L	17.5	20	22.5	25
F	5	7	7	12

### How to Order

DP12	H	N	12	A	20	F
Common Part	Orientation	Detent	Pulses	Bush Details	Shaft Length	Shaft Style
DP12 – No Switch DP12S – With Switch	H - Horizontal V - Vertical	N - None 12 – 12 clicks 24 – 24 Clicks	12 – 12 Pulses 24 – 24 Pulses	A – 5mm V & H Standard	17.5 – 17.5mm 20 – 20mm 22.5 – 22.5mm 25 – 25mm	F - Flatted