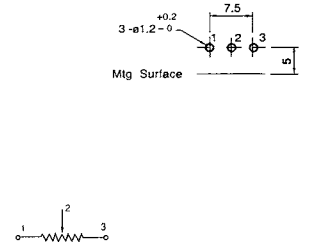
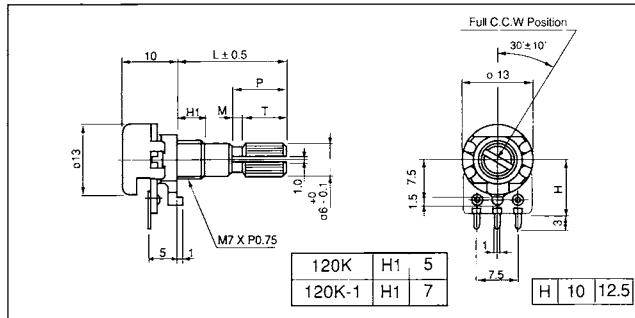
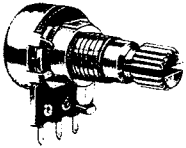


# F-120K Series

## Metal Shaft Rotary Potentiometer

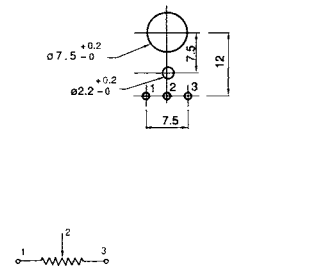
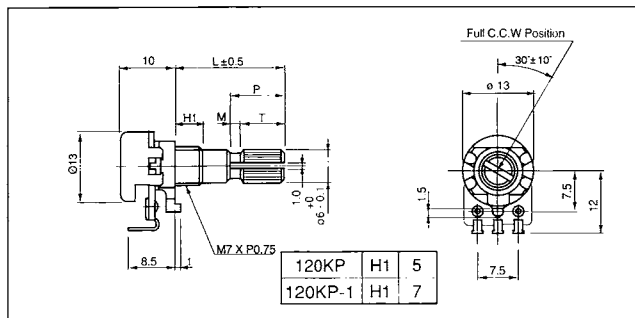
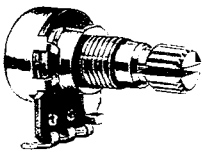
### F-120K

Vertical Type with 1,11,21,41 Clicks, Single Unit, P.C.B. Terminal



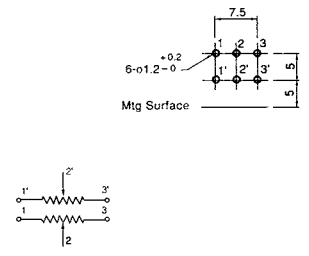
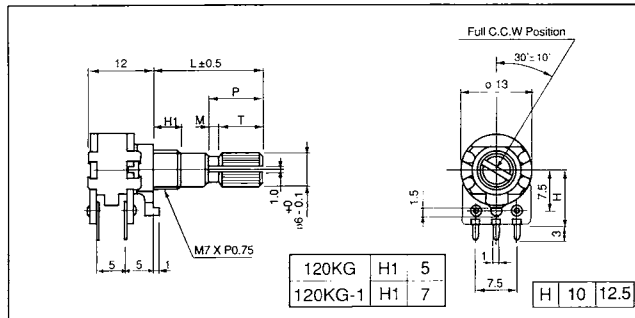
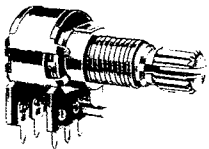
### F-120KP

Vertical Type with 1,11,21,41 Clicks, Single Unit, Solder Terminal



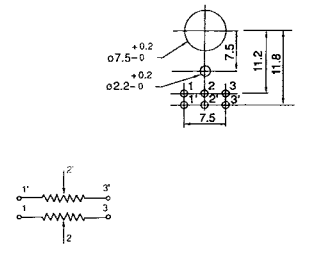
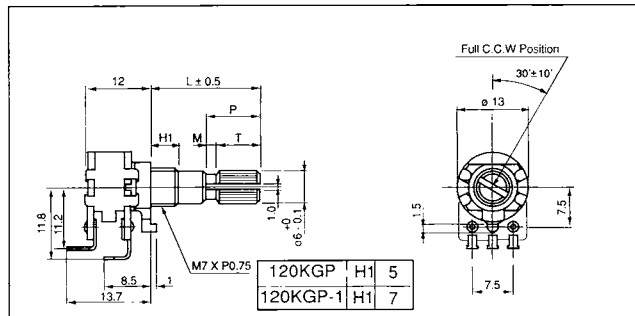
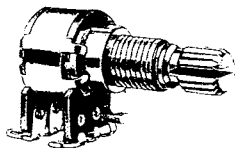
### F-120KG

Vertical Type with 1,11,21,41 Clicks, Dual Unit, P.C.B. Terminal



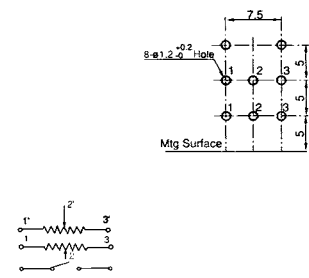
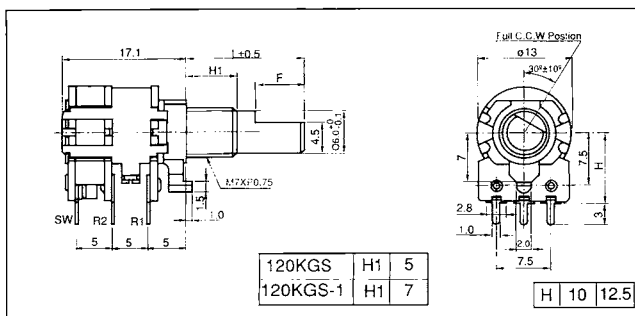
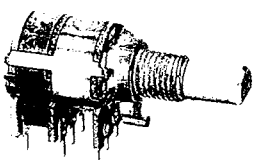
### F-120KGP

Vertical Type with 1,11,21,41 Clicks, Dual Unit, Solder Terminal



### F-120KGS

Vertical Type with Switch, Dual Unit, P.C.B. Terminal



# F-120K Series

## Metal Shaft Rotary Potentiometer

### SPECIFICATIONS

#### Electrical Characteristics

- Total Resistance ..... 500 Ω~500K Ω
- Total Resistance Tolerance ..... ± 20%
- Resistance Taper ..... A,B,C,D, See P14
- Max. Operation Voltage..... Linear Taper B : AC 150 V  
Other Tapers : AC 100V
- Rated Power ..... Linear Taper B :0.1W  
Other Tapers : 0.05 W
- Sliding Noise ..... Less than 100 mV
- Insulation Resistance ..... More than 50 MΩ at DC 500 V
- Withstand Voltage ..... 1 minute at AC 300 V
- Residual Resistance ..... Term. 1~2: Less than 20 Ω  
Term. 2~3: Less than 20 Ω
- Gang Error (Dual Unit)..... -40 dB~ 0 dB ±3 dB
- Switch Contact Resistance..... Less than 50 mΩ
- Switch Rated Power..... 2.0 A at AC 125 V

#### Mechanical Characteristics

- Total Rotational Angle ..... 300° ±10°
- Rotational Torque ..... 20gf.cm~200 gf.cm
- Rotational Stopper Strength ..... 3.0 Kgf.cm Min
- Push-Pull Strength ..... 5.0Kgf Min
- Click Position..... 1C, 11C, 21C, 41C
- Click Torque..... 30 gf.cm ~ 300 gf.cm
- Switch Rotational Angle..... 30° ± 10°
- Switch Action..... 150 gf.cm ~ 500 gf.cm

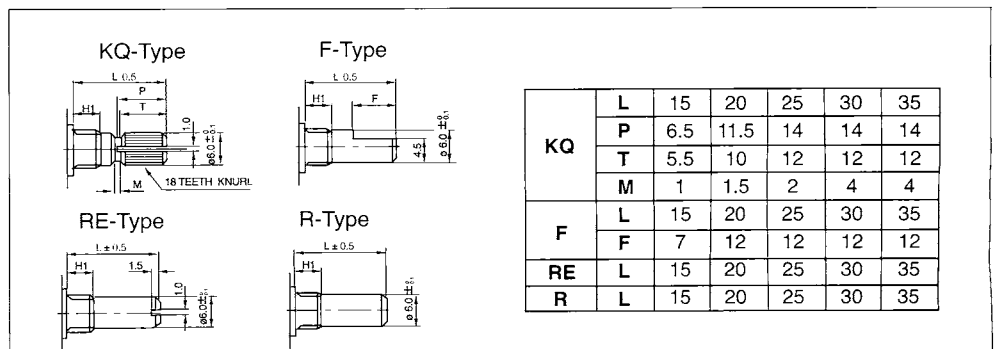
#### Durability

- Rotational Life ..... 10,000 Cycles

### SHAFT ILLUSTRATION

Standard Dimensions of Shaft for F-120K Series.

(Customer designs are welcomed)

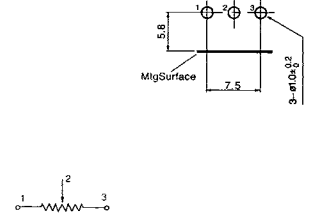
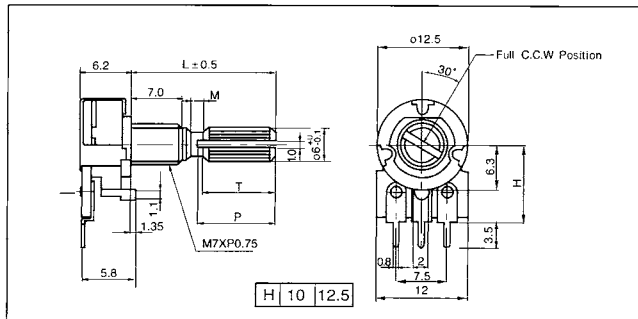
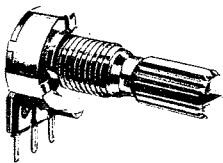


# F-121K Series

## Metal Shaft Rotary Potentiometer

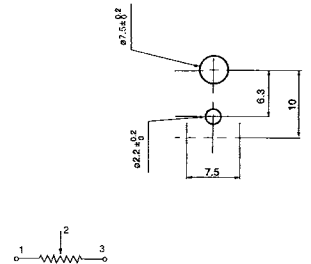
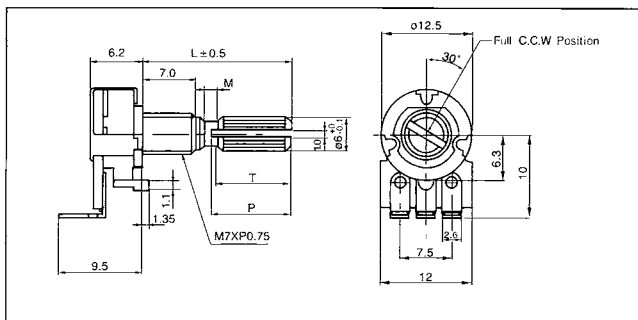
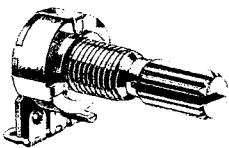
### F-121K

Vertical Type, Single Unit,  
P.C.B. Terminal



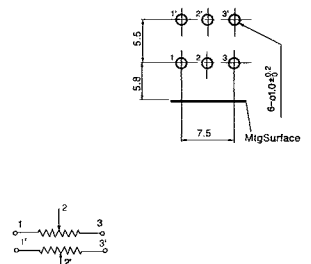
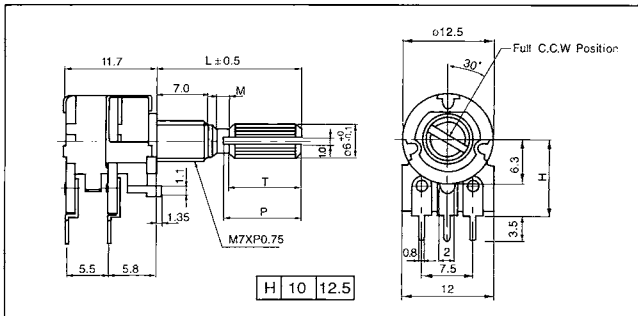
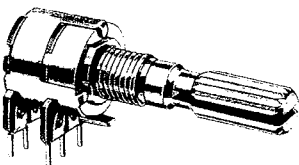
### F-121KP

Vertical Type, Single Unit,  
Solder Terminal



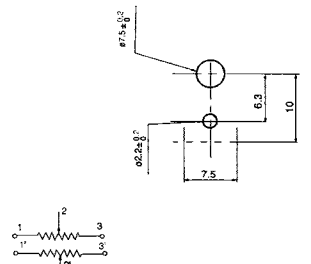
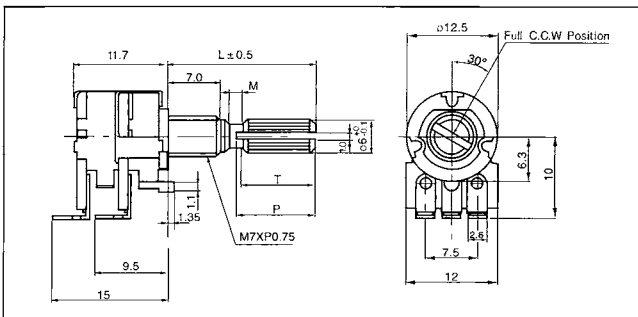
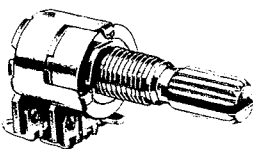
### F-121KG

Vertical Type, Dual Unit,  
P.C.B. Terminal



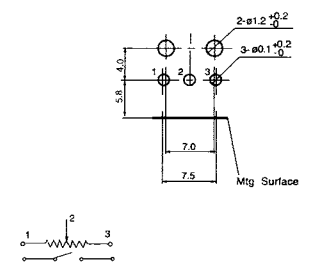
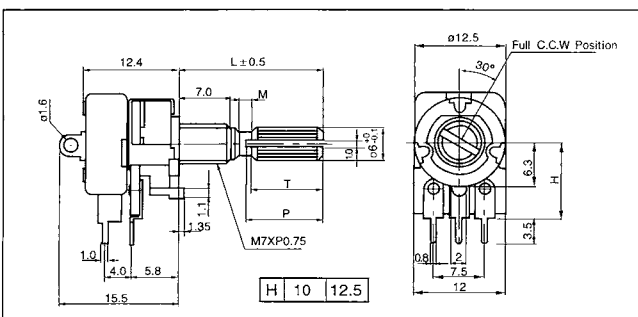
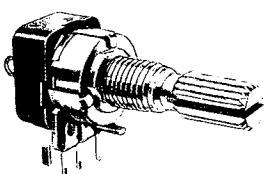
### F-121KGP

Vertical Type, Dual Unit,  
Solder Terminal



### F-121KS

Vertical Type with Switch,  
Single Unit, P.C.B. Terminal

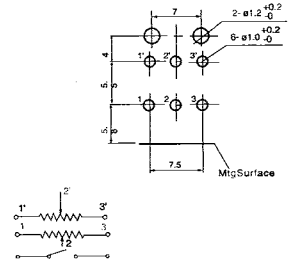
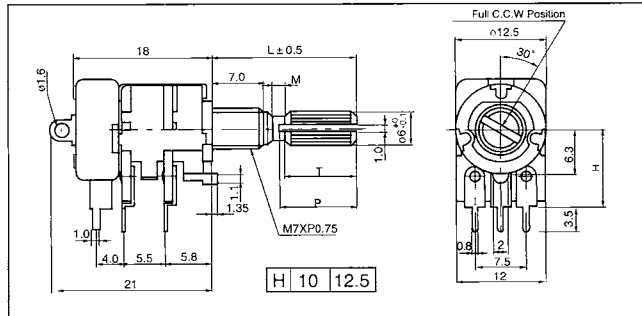
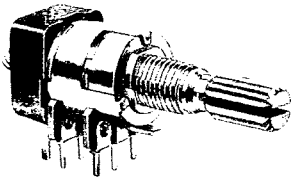


# F-121K Series

## Metal Shaft Rotary Potentiometer

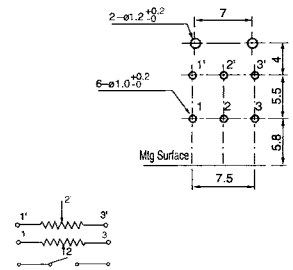
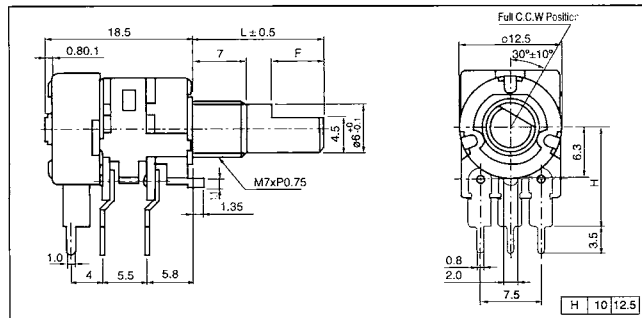
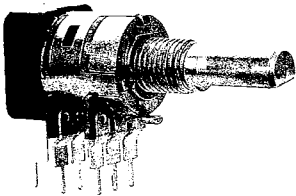
### F-121KGS

Vertical Type with Switch,  
Dual Unit,,P.C.B. Terminal



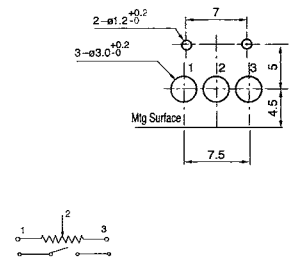
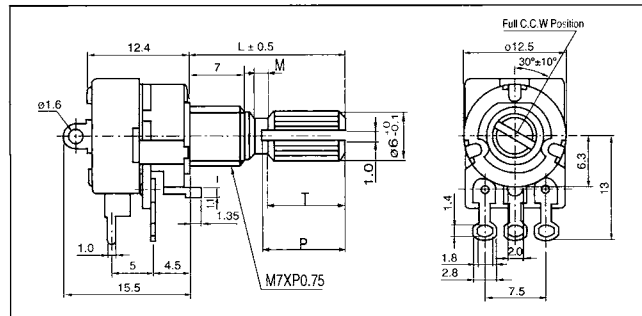
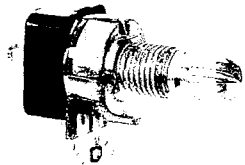
### F-121KGS-1

Vertical Type with Switch,  
Dual Unit,,P.C.B. Terminal



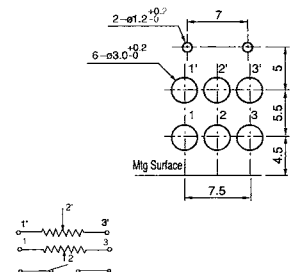
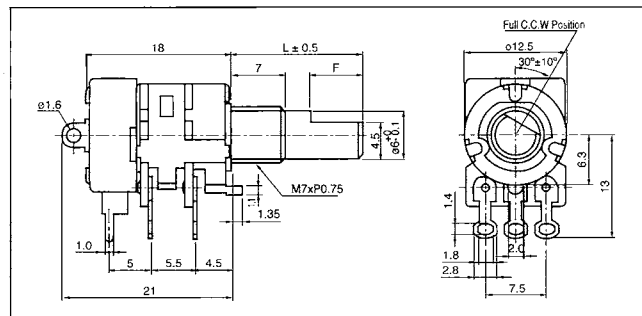
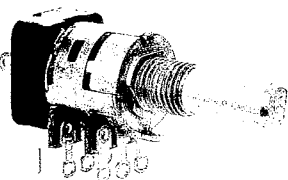
### F-121KSP1

Vertical Type with Switch,  
Single Unit,Solder Terminal



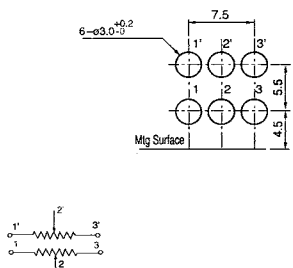
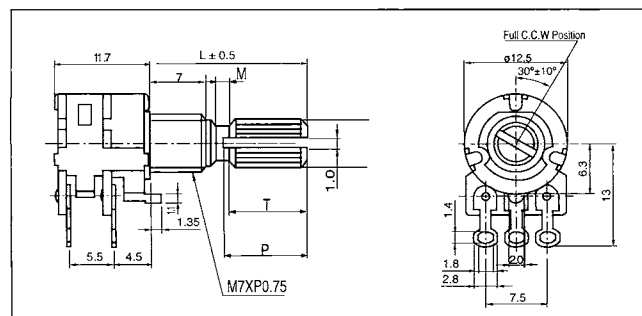
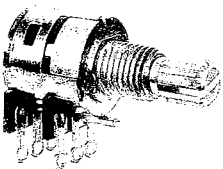
### F-121KGSP1

Vertical Type with Switch,  
Dual Unit,Solder Terminal



### F-121KGP1

Vertical Type ,Dual Unit,  
Solder Terminal



# F-121K Series

## Metal Shaft Rotary Potentiometer

### SPECIFICATIONS

#### Electrical Characteristics

- Total Resistance.....500  $\Omega$  ~ 500 K $\Omega$
- Total Resistance Tolerance..... $\pm 20\%$
- Resistance Taper.....A,B,C,D, See P14
- Max. Operation Voltage.....AC 50 V, DC 20 V
- Rated Power.....Linear Taper B : 0.1 W  
Other Tapers : 0.05 W
- Sliding Noise.....Less than 100 mV
- Insulation Resistance.....More than 100M $\Omega$  at DC 250 V
- Withstand Voltage.....1 minute at AC300V
- Residual Resistance.....Term. 1 ~ 2 : Less than 20  $\Omega$   
Term. 2 ~ 3 : Less than 20  $\Omega$
- Gang Error (Dual Unit).....- 40 dB ~ 0 dB  $\pm 3$  dB
- Switch Contact Resistance.....Less than 50 m $\Omega$
- Switch Rated Power.....3.0 A at DC 16 V,  
1.0 A at AC 125 V,

#### Mechanical Characteristics

- Total Rotational Angle.....300 $^{\circ}$   $\pm 10^{\circ}$
- Rotational Torque.....20 gf.cm ~ 200 gf.cm
- Rotational Stopper Strength.....3.0 Kgf.cm Min
- Push-Pull Strength.....5.0 Kgf Min
- Switch Rotational Angle.....35 $^{\circ}$   $\pm 5^{\circ}$
- Switch Action.....100 gf.cm ~ 350 gf.cm

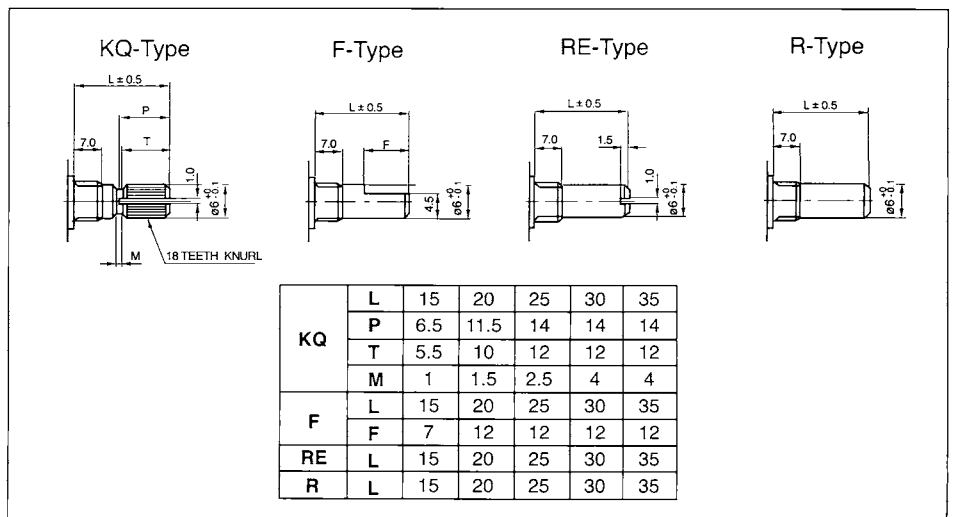
#### Durability

- Rotational Life.....10,000 Cycles

### SHAFT ILLUSTRATION

Standard Dimensions of Shaft for F-121K Series.

(Customer designs are welcomed)

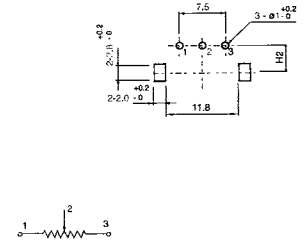
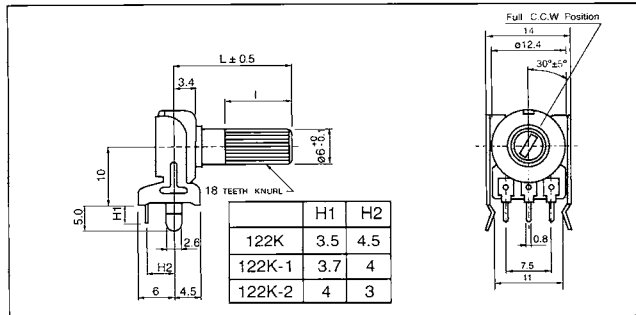
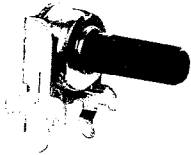


# F-122K Series

## Snap-In Insulated Shaft Rotary Potentiometer

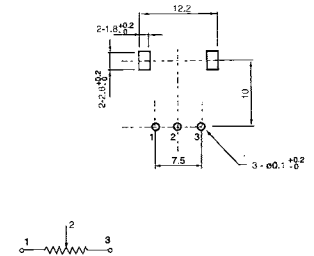
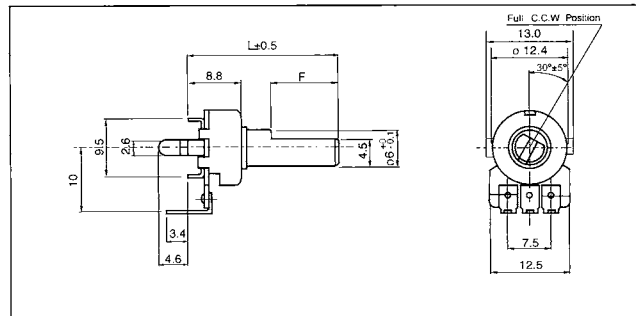
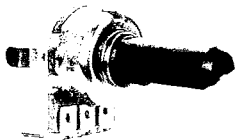
### F-122K

Vertical Type, Single Unit,  
P.C.B. Terminal with Center Click



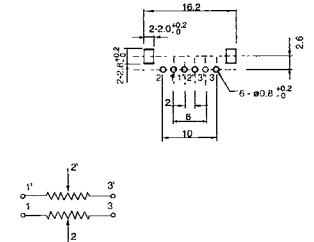
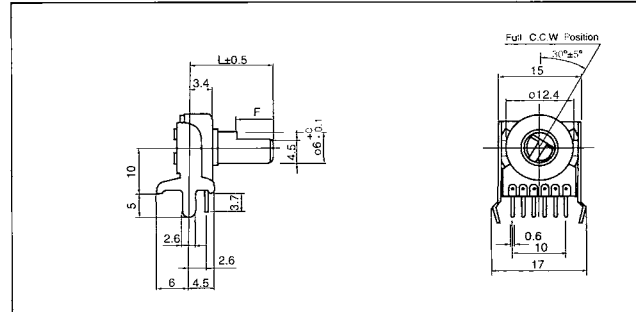
### F-122KP

Horizontal Type, Single Unit,  
P.C.B. Terminal with Center Click



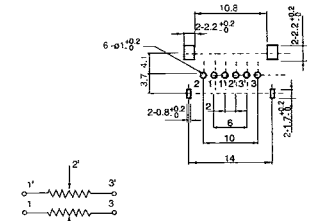
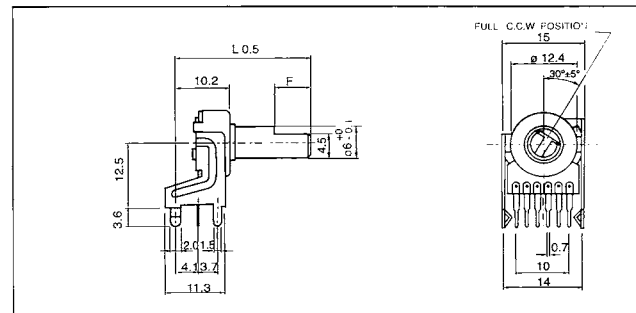
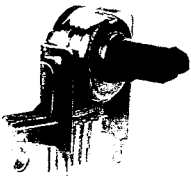
### F-122KG

Vertical Type, Dual Unit  
P.C.B. Terminal with Center Click



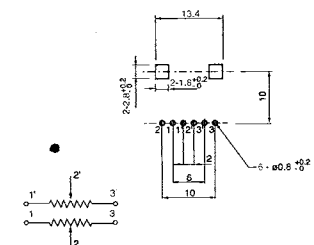
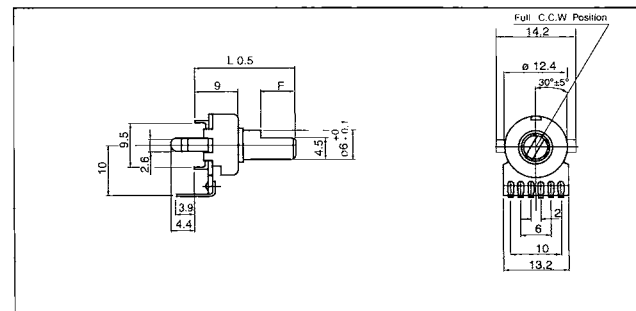
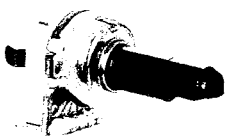
### F-122KGE

Vertical Type, Dual Unit  
P.C.B. Terminal with Center Click



### F-122KGP

Horizontal Type, Dual Unit  
P.C.B. Terminal with Center Click

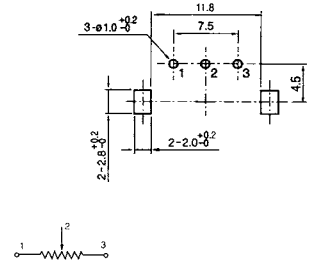
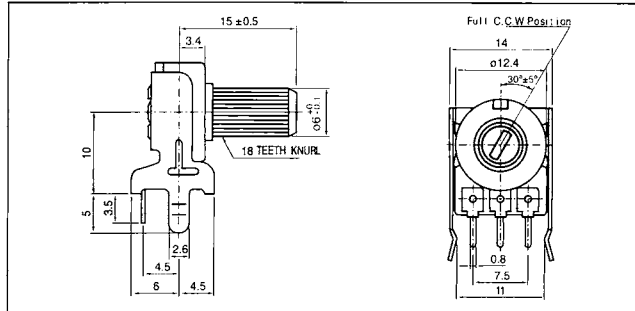
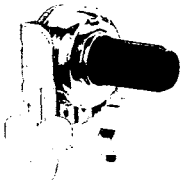


# F-122K Series

## Snap-In Insulated Shaft Rotary Potentiometer

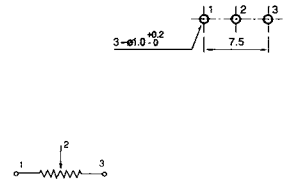
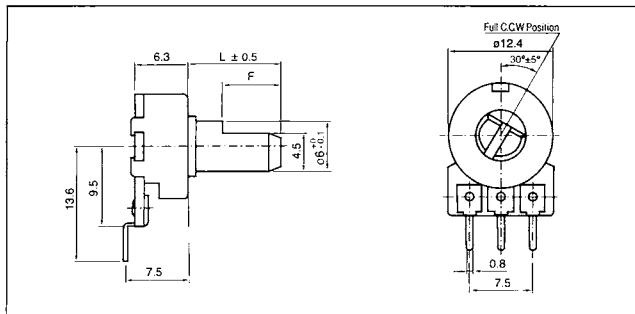
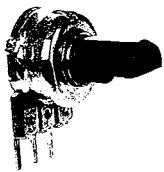
### F-122K-3

Vertical Type, Single Unit,  
P.C.B. Terminal with Center Click



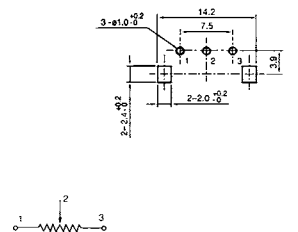
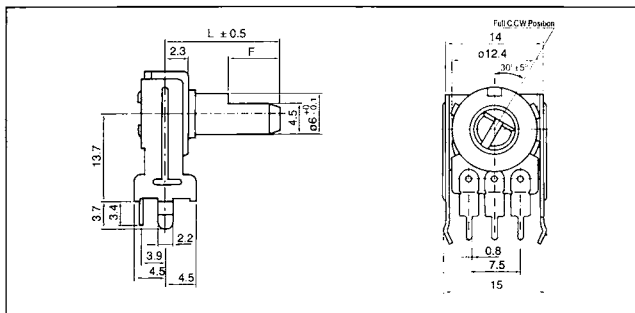
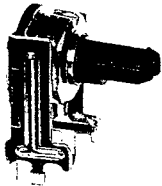
### F-122K-5

Vertical Type, Single Unit,  
P.C.B. Terminal with Center Click



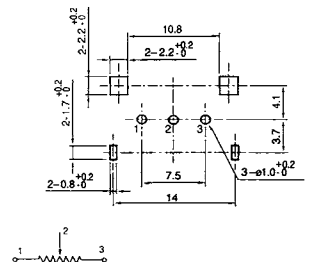
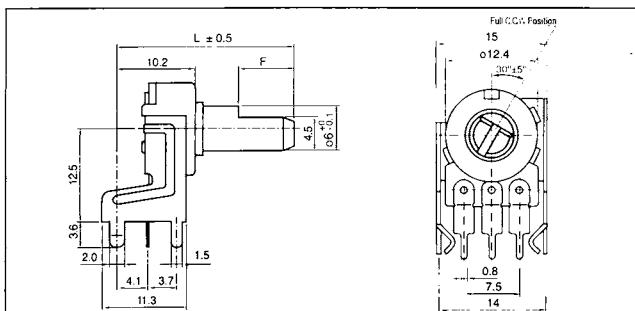
### F-122K-N

Vertical Type, Single Unit  
P.C.B. Terminal with Center Click



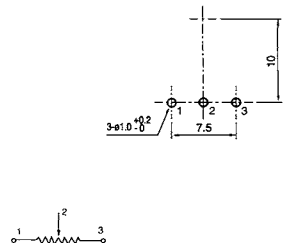
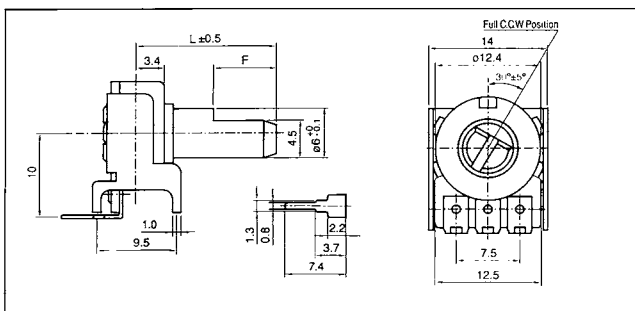
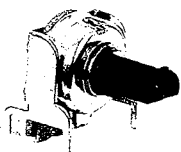
### F-122KNE

Vertical Type, Single Unit  
P.C.B. Terminal With Center Click.



### F-122KPN

Vertical Type, Single Unit  
P.C.B. Terminal With Center Click.



# F-122K Series

## Snap-In Insulated Shaft Rotary Potentiometer

### SPECIFICATIONS

#### Electrical Characteristics

- Total Resistance.....1 K  $\Omega$  ~ 1 M  $\Omega$
- Total Resistance Tolerance..... $\pm 20\%$
- Resistance Taper.....A,B,C,D, See P14
- Max. Operation Voltage.....Single Unit : AC 50 V / DC 20 V  
Dual Unit : DC 20 V
- Rated Power.....Single Unit : 0.05 W, Dual Unit : 0.03 W
- Sliding Noise.....Less than 100mV
- Insulation Resistance.....More than 100 M $\Omega$  at DC 250V
- Withstand Voltage.....1 minute at AC 300 V
- Residual Resistance.....Term. 1 ~ 2 : Less than 20  $\Omega$   
Term. 2 ~ 3 : Less than 20  $\Omega$
- Gang Error (Dual Unit).....- 40 dB ~ 0 dB  $\pm 3$  dB

#### Mechanical Characteristics

- Total Rotational Angle..... $300^\circ \pm 5^\circ$
- Rotational Torque.....20 gf.cm ~ 200 gf.cm
- Rotational Stopper Strength.....3.0 Kgf.cm Min
- Push-Pull Strength.....8.0Kgf Min

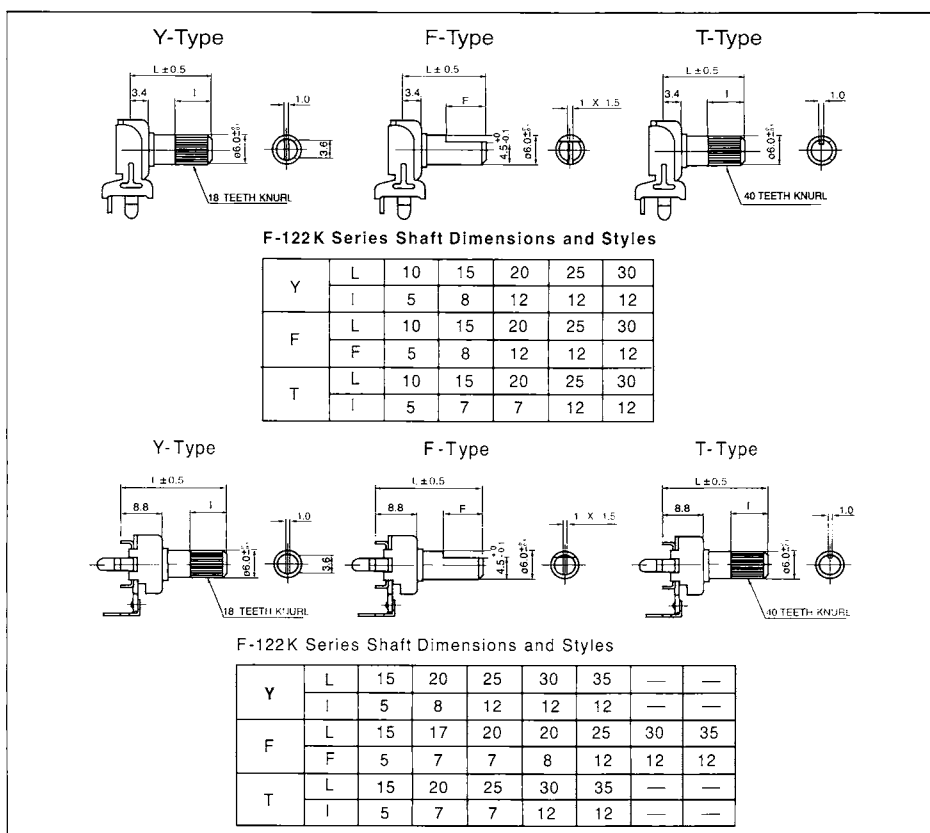
#### Durability

- Rotational Life.....10,000 Cycles

### SHAFT ILLUSTRATION

Standard Dimensions of Shaft for F-122K Series.

(Customer designs are welcomed)

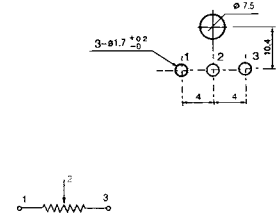
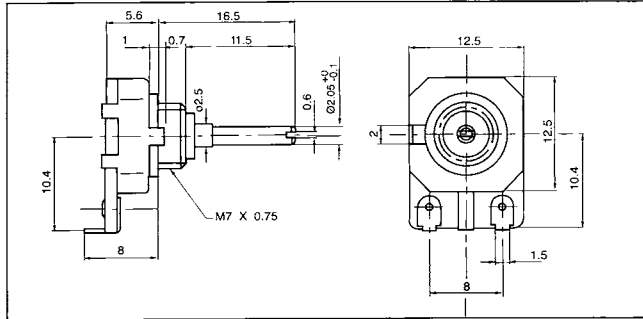
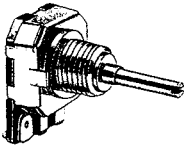


# F-123K Series

## Copper Shaft Rotary Potentiometer

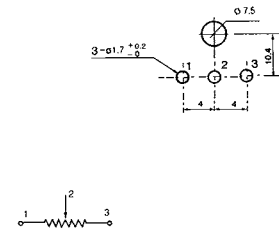
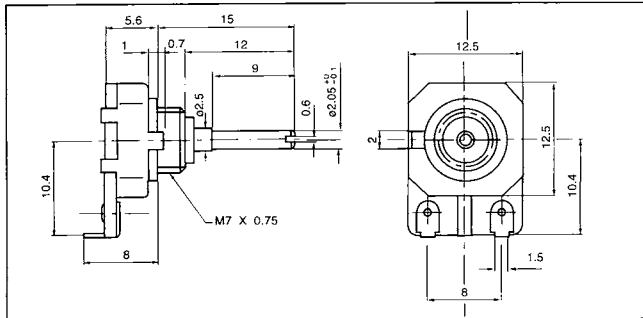
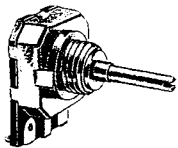
### F-123K-SM62

Vertical Type, Single Unit,  
Solder Terminal



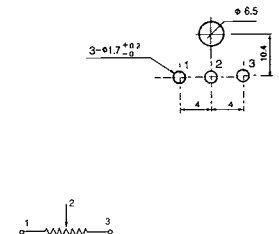
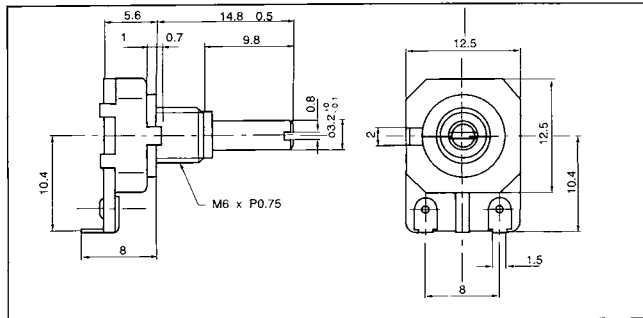
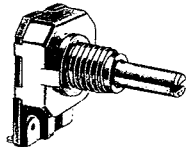
### F-123K-SM7

Vertical Type, Single Unit,  
Solder Terminal



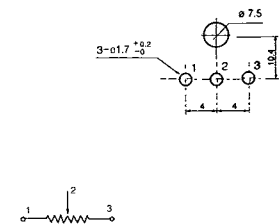
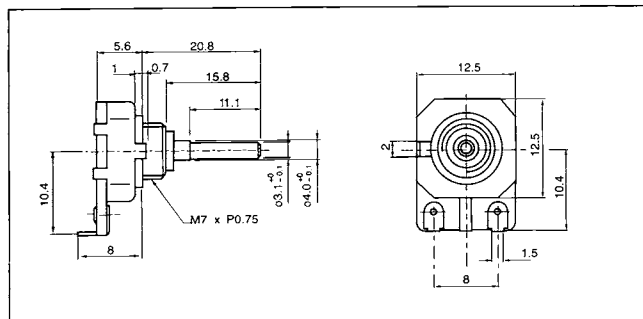
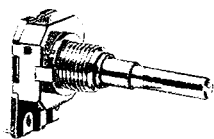
### F-123K-SAT1

Vertical Type, Single Unit,  
Solder Terminal



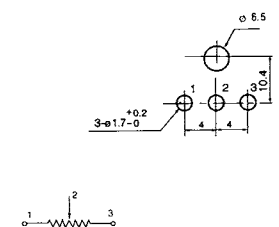
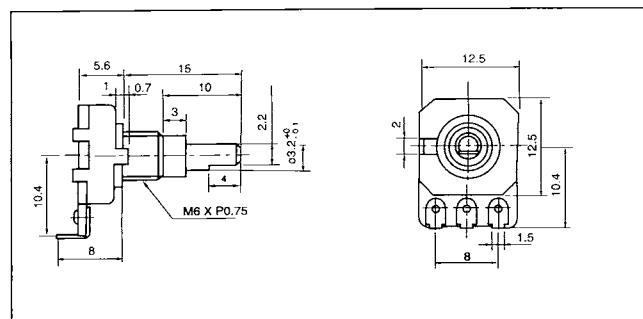
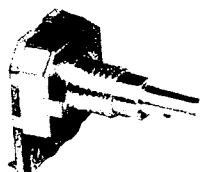
### F-123K-SM747

Vertical Type, Single Unit,  
Solder Terminal



### F-123K-SAT5

Vertical Type, Single Unit,  
Solder Terminal



# F-123K Series

## Copper Shaft Rotary Potentiometer

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### SPECIFICATIONS

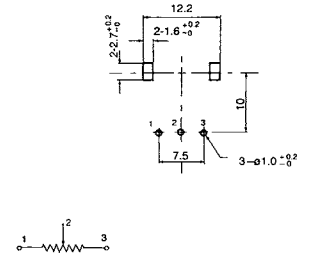
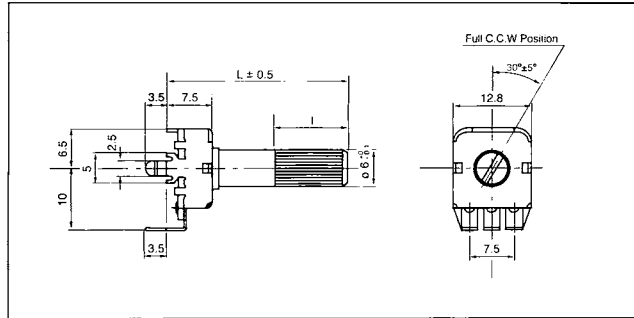
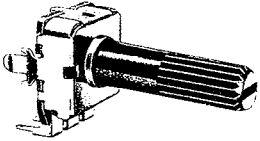
- Electrical Characteristics
- Total Resistance..... 200  $\Omega$ ~ 500 K $\Omega$
  - Total Resistance Tolerance.....  $\pm 20\%$
  - Resistance Taper..... A,B,C,D, See P14
  - Max. Operation Voltage..... Linear Taper B : AC 200 V  
Other Tapers : AC 150 V
  - Rated Power..... Linear Taper B : 0.2 W  
Other Tapers : 0.1 W
  
  - Sliding Noise..... Less than 100mV
  - Insulation Resistance..... More than 50 M $\Omega$  at DC 500 V
  - Withstand Voltage..... 1 minute at AC 500 V
  - Residual Resistance..... Term. 1 ~ 2 : Less than 100  $\Omega$   
Term. 2 ~ 3 : Less than 100  $\Omega$
- Mechanical Characteristics
- Total Rotational Angle..... 360°, 300°, 270°
  - Rotational Torque..... 10 gf.cm ~ 200 gf.cm
  - Rotational Stopper Strength..... 5.0 Kgf.cm Min
  - Push-Pull Strength..... 8 Kgf Min
- Durability
- Rotational Life..... 100,000 Cycles Min

# F-124K Series

## Snap-In Insulated Shaft Rotary Potentiometer

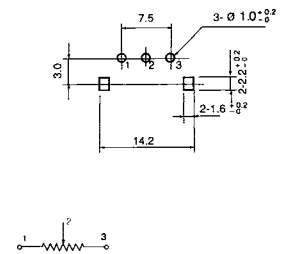
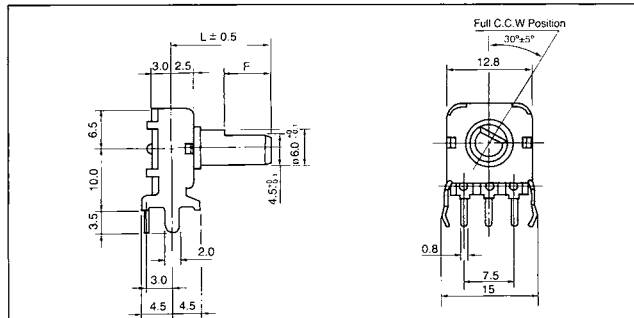
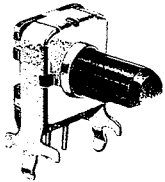
### F-124K

Horizontal Type, Single Unit,  
P.C.B. Terminal



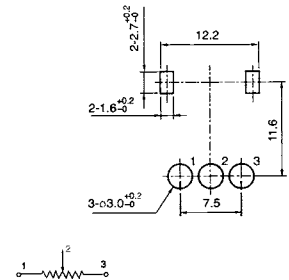
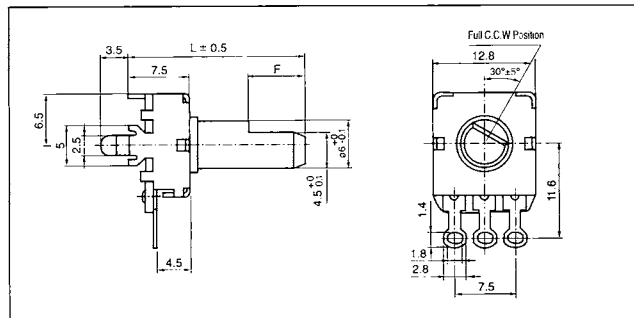
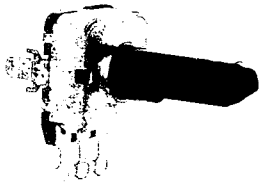
### F-124KP

Vertical Type, Single Unit,  
P.C.B. Terminal



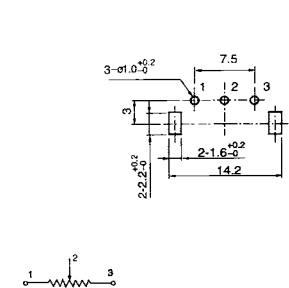
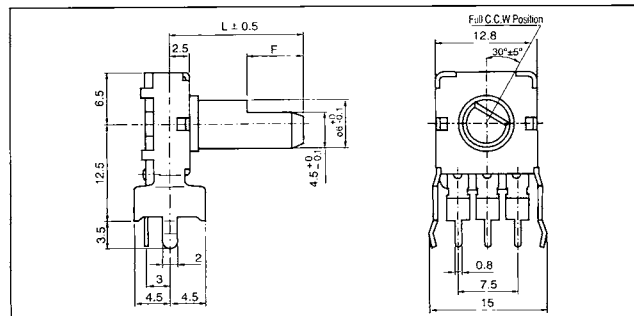
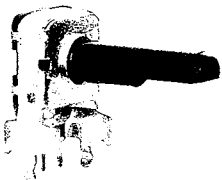
### F-124K-1

Horizontal Type, Single Unit,  
Solder Terminal



### F-124KP-1

Vertical Type, Single Unit,  
P.C.B. Terminal



# F-124K Series

## Snap-In Insulated Shaft Rotary Potentiometer

### SPECIFICATIONS

#### Electrical Characteristics

- Total Resistance.....1 K $\Omega$ ~500 K $\Omega$
- Total Resistance Tolerance..... $\pm 20\%$
- Resistance Taper..... A,B,C,D, See P14
- Max. Operation Voltage..... Linear Taper B : AC 150 V  
Other Tapers : AC 100 V
- Rated Power..... Linear Taper B : 0.08 W  
Other Tapers : 0.04 W
- Sliding Noise..... Less than 100mV
- Insulation Resistance..... More than 50 M $\Omega$  at DC 500 V
- Withstand Voltage..... 1 minute at AC 500 V
- Residual Resistance..... Term. 1 ~ 2 : Less than 20  $\Omega$   
Term. 2 ~ 3 : Less than 20  $\Omega$

#### Mechanical Characteristics

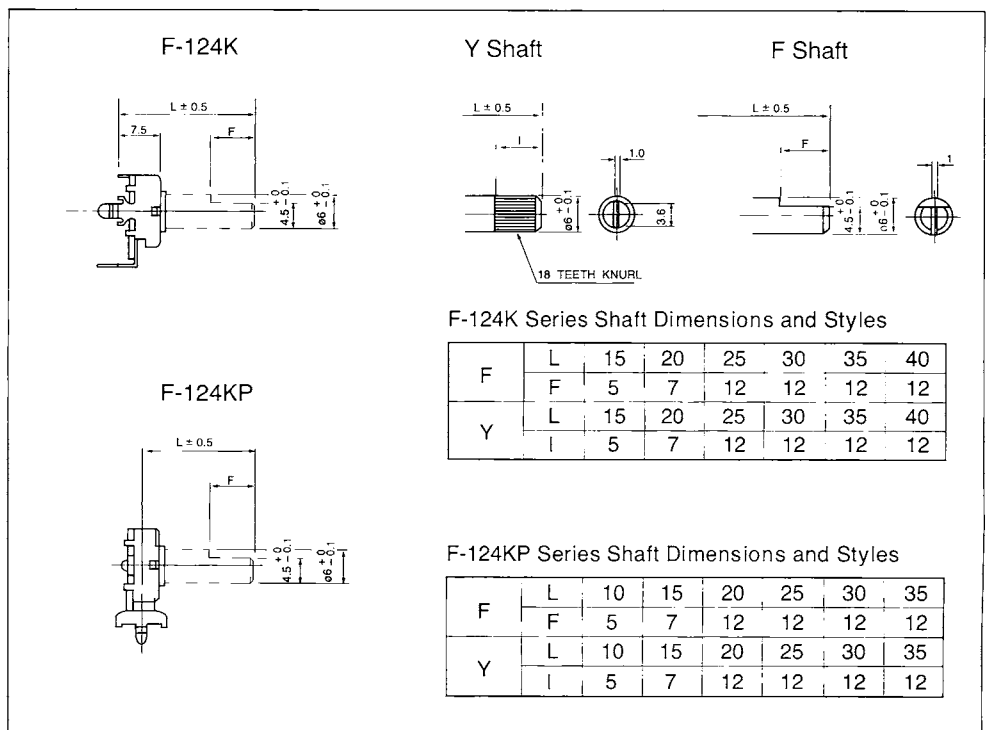
- Total Rotational Angle.....300°  $\pm$  5°
- Rotational Torque.....20 gf.cm ~ 200 gf.cm
- Rotational Stopper Strength..... 3.0 Kgf.cm Min
- Push-Pull Strength..... 8.0 Kgf Min

#### Durability

- Rotational Life.....10,000 Cycles

### SHAFT ILLUSTRATION

Standard Dimensions of Shaft for F-124K Series.  
(Customer designs are welcomed)

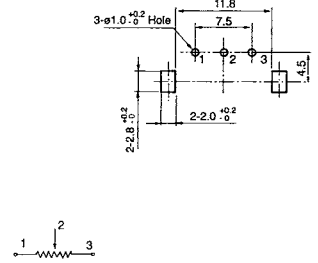
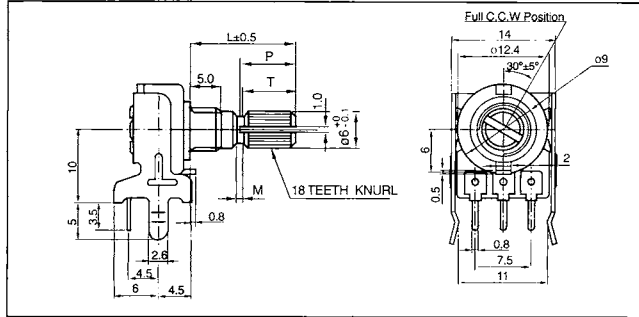
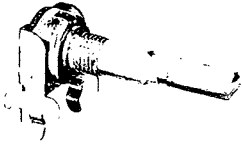


# F-125K Series

## Metal Shaft Rotary Potentiometer

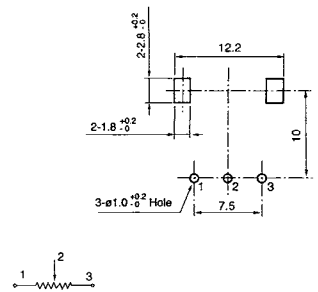
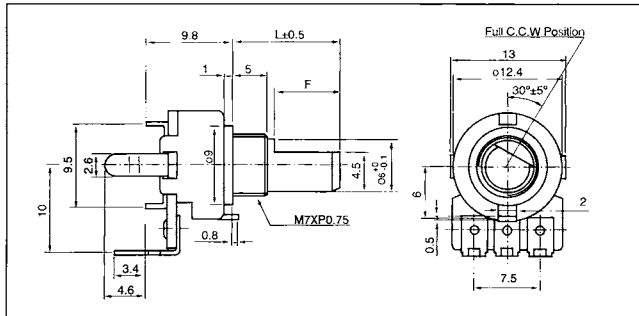
### F-125K

Vertical Type, Single Unit,  
P.C.B Terminal



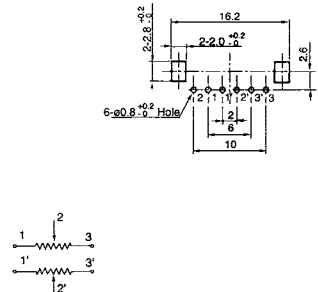
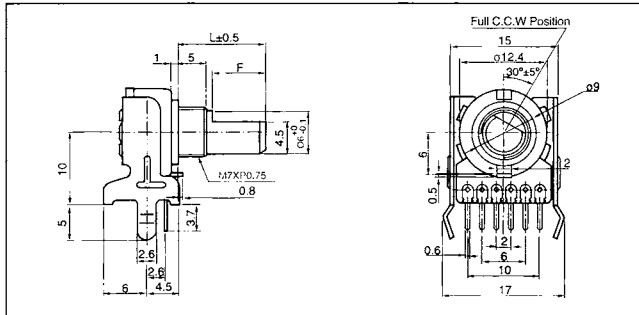
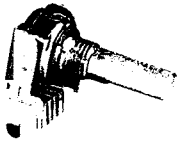
### F-125KP

Horizontal Type, Single Unit,  
P.C.B Terminal



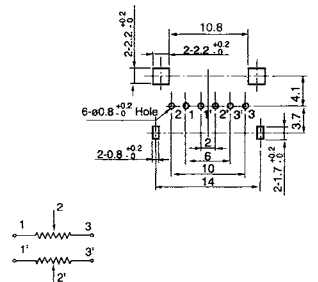
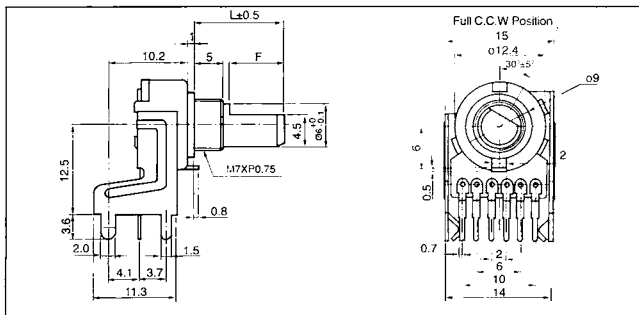
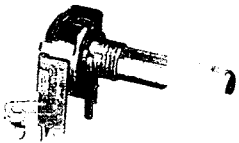
### F-125KG

Vertical Type, Dual Unit,  
P.C.B Terminal



### F-125KGE

Vertical Type, Dual Unit,  
P.C.B Terminal



### F-125KGP

Vertical Type, Dual Unit,  
P.C.B Terminal

