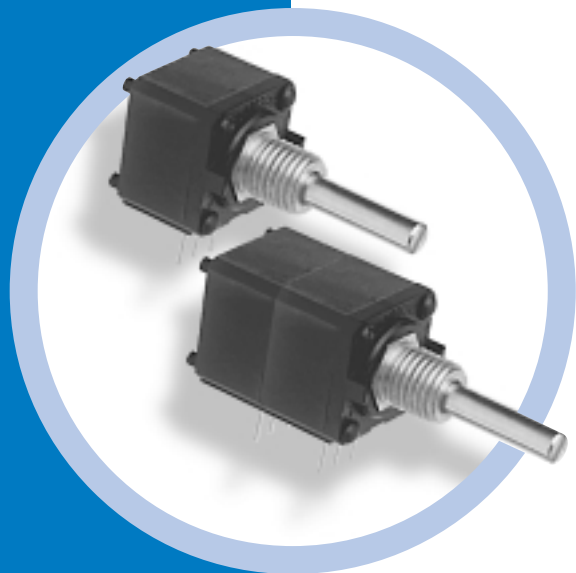


# Model 590 & 591

**NEW**

## Commercial Potentiometers



### 590 FEATURES:

- Commercial Modular Pot
- Conductive Plastic Element
- Smooth Feel
- High Rotational Life
- Quiet Electrical Output
- Robust Construction

### 591 FEATURES:

- Commercial Modular Pot
- Cermet Element
- Smooth Feel
- Temperature Stable
- Robust Construction

## Electrical

### RESISTANCE RANGE:

590: 100 $\Omega$  to 5.0M $\Omega$  - linear  
500 $\Omega$  to 2M - non linear  
591: 100 $\Omega$  to 2.0M $\Omega$  - linear  
250 $\Omega$  to 1M $\Omega$  - non linear

### RESISTANCE TOLERANCE:

Linear- Standard  $\pm 10\%$  to 500K,  
 $\pm 20\%$  over 500K  
Non-Linear- Standard  $\pm 10\%$  to 100K,  
 $\pm 20\%$  over 100K

### TAPER TOLERANCE:

20% of Nominal R @ 50%  
Mechanical Rotation

### LINEARITY:

$\pm 5\%$  Independent

### END RESISTANCE:

Linear- 4 $\Omega$  Max. Each End  
Non-Linear- 4 $\Omega$  Max., low side;  
1% Total R high side

### POWER RATING:

590: 0.5 watts @ 70°C, 0 watts @ 120°C  
591: 1 watt @ 70°C, 0 watt @ 150°C,  
Non-Linear or PC Mount, Derate 50%

### EFFECTIVE ROTATION:

265°  $\pm 5^\circ$  without Rotary Switch  
240°  $\pm 5^\circ$  with Rotary Switch

### DYNAMIC NOISE:

590: 1.5% of total resistance  
591: 3% of total resistance

### MAXIMUM CONTINUOUS WORKING VOLTAGE:

350 VAC across end terminals,  
but within power rating.

### DIELECTRIC WITHSTANDING VOLTAGE:

Sea Level- 750 VAC  
70,000 Feet- 350 VAC

### SWITCH SPECIFICATIONS:

Rotary (AL) Switch: S.P.S.T. and  
S.P.D.T., 125 mA, 28 VDC (Dry Circuit)  
CCW or CW, Rotational Life 25,000  
cycles (Rated Load).

## Environmental

### OPERATING TEMPERATURE:

590: -40°C to +120°C  
591: -40°C to +150°C

### STORAGE TEMPERATURE:

590: -55°C to +120°C  
591: -55°C to +150°C

### TEMPERATURE CYCLING:

590: -40°C to +120°C; (4%  $\Delta R_t$ )  
591: -40°C to +150°C; (3%  $\Delta R_t$ )

### LOAD LIFE:

1000 hrs. Rated Load @ 70°C  
590: 10%  $\Delta R_t$   
591: 5%  $\Delta R_t$

### ROTATIONAL LOAD LIFE:

590: 50,000 cycles  
591: 25,000 cycles

### TCR (Over Storage Temperature Range):

590:  $\pm 1000$  ppm/°C  
591:  $\pm 150$  ppm/°C

## Mechanical

### MECHANICAL ROTATION:

295°  $\pm 5^\circ$

### TORQUE:

Operating-Single section .2 to 3.0 oz. in.  
Dual or triple section .3 to  
4.5 oz. in.

Variation in a control- .5 oz. in.  
Center Detent- .6 to 3.0 oz. in.  
Stop Strength- 3 in. lbs. min.

### WEIGHT (APPROX):

Single- 0.19 oz., Dual- 0.27 oz.,  
Triple- 0.35 oz.

### MARKING:

Ink Stamp on Periphery or Rear per  
EIA standard

ISO 9001  
CERTIFIED

