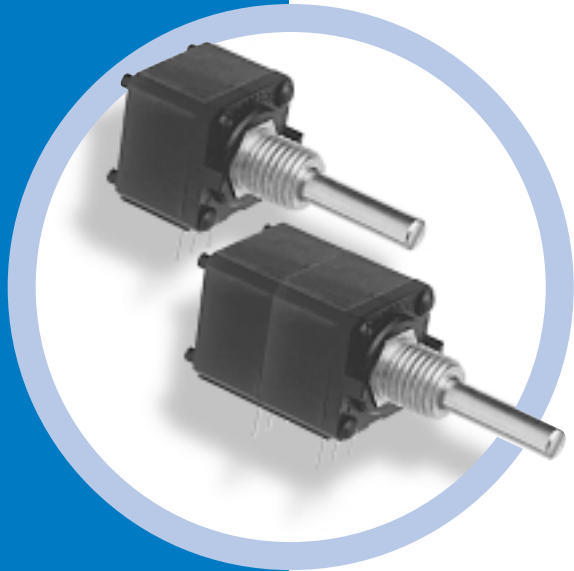


Model 590 & 591

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 Ω to 5.0M Ω - linear
500 Ω to 2M - non linear
591: 100 Ω to 2.0M Ω - linear
250 Ω to 1M Ω - 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 Ω Max. Each End
Non-Linear- 4 Ω 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% ΔR_t)
591: -40°C to +150°C; (3% ΔR_t)

LOAD LIFE:

1000 hrs. Rated Load @ 70°C
590: 10% ΔR_t
591: 5% ΔR_t

ROTATIONAL LOAD LIFE:

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

TCR (Over Storage Temperature Range):

590: ± 1000 ppm/°C
591: ± 150 ppm/°C

Mechanical

MECHANICAL/ELECTRICAL 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

STATE
ELECTRONICS

DIMENSIONS

CONSTRUCTION FEATURES:

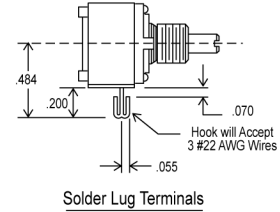
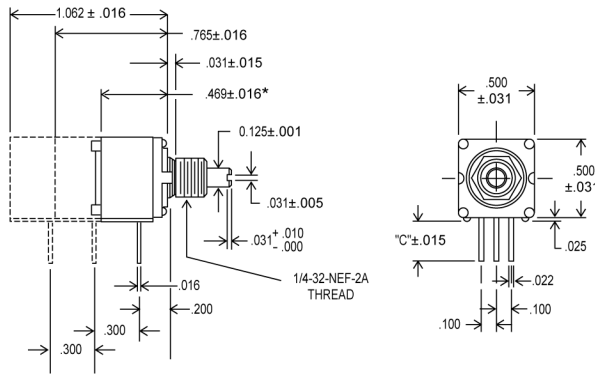
- Up to three sections
- Mounting-Bushing
 - PC Support Plates
 - Type A forward mount
 - Type C rear mount

- Rotary switches
- Valley detents
- Solder hook terminals
- 3/8 Bush; 1/4 shaft

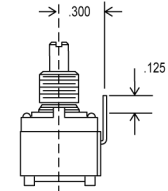
- Shaft seal
- Mounting seal
- Not sealed for board washing

CONSTRUCTION MATERIALS:

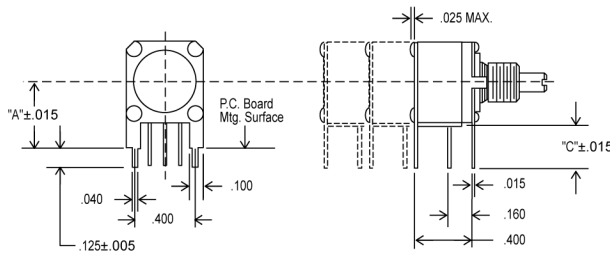
- Housing- Molded Thermoplastic-black
- Bushing- Brass
- Shaft- Brass
- Wiper- Metal contact spring



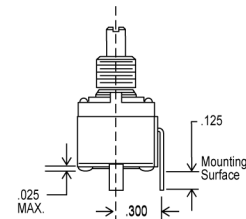
Solder Lug Terminals



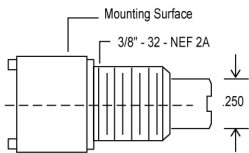
Type "A" Mounting



P.C. Type B-24 - Single, Dual, or Triple
Panel and Rear Support Plates - Horizontal Mounting



Type "C" Mounting



ORDERING INFORMATION

When ordering, indicate the desired options as shown in this example:

590	S	X	1	M	16	S	103	S	P
SERIES 590 CP 591 Cer	NUMBER OF SECTIONS S: Single D: Dual T: Triple	MECHANICAL CONFIGURATION X: None (single shaft S, D, T sections) S: Single w/ rotary switch	LOCATING PIN 7: None 1: SGL, 9 o'clock 2: SGL, 3 o'clock 5: DBL, 3 & 9 o'clock	BUSHING SIZE & SHAFT DIAMETER N: 1/4 Dia x 1/4 L Shaft, 1/8 Dia J: 1/4 Dia x 3/8 L Shaft, 1/8 Dia G: 3/8 Dia x 3/8 L Shaft, 1/4 Dia	SHAFT LENGTH CODE 32: 1/2 in. 40: 5/8 in. 48: 3/4 in. 56: 7/8 in. 64: 1 in. 80: 1 1/4 in.	SHAFT STYLE S: Slotted F: Flatted P: Plain	RESISTANCE CODE (ohms) (EIA Code- First 2 significant digits, 3rd is number of zeros) 100 10K 500K 250 20K 750K 500 25K 1meg 750 50K 2meg 1K 75K 5meg 2.5K 100K 5K 250K	TAPER S: Linear Z: CW Log R: CCW Log,	TERMINAL CONFIGURATION P: PC, 0.250" long B: P terminals w/B-24-5 support plate S: Solder Hook A: Type A Mounting C: Type C Mounting

