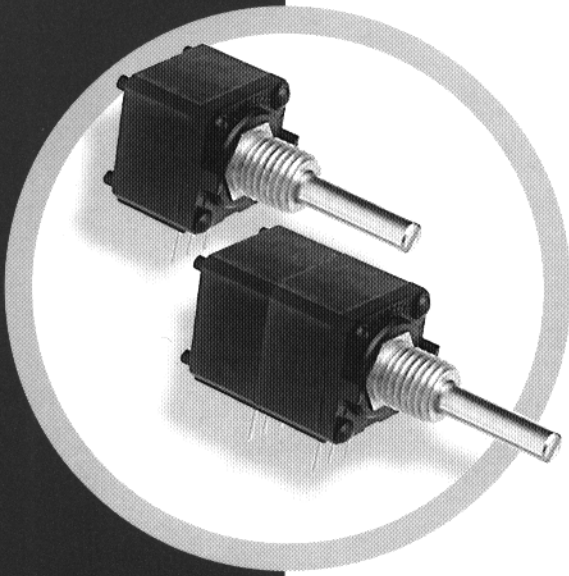


Model 590 & 591

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: 100Ω to 5.0MΩ - linear
500Ω to 2M - non linear
591: 100Ω to 2.0MΩ - linear
250Ω to 1MΩ - non linear

RESISTANCE TOLERANCE:

Linear- Standard ±10% to 500K,
±20% over 500K
Non-Linear- Standard ±10% to 100K,
±20% over 100K

TAPER TOLERANCE:

20% of Nominal R @ 50%
Mechanical Rotation

LINEARITY:

±5% Independent

END RESISTANCE:

Linear- 4Ω Max. Each End
Non-Linear- 4Ω 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° ±5° without Rotary Switch
240° ±5° 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
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% ΔRt)
591: -40°C to +150°C; (3% ΔRt)

LOAD LIFE:

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

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 ROTATION:

295° ±5°

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**

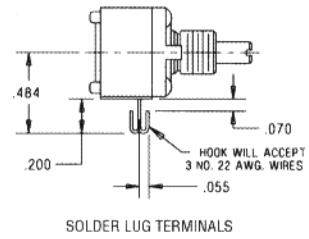
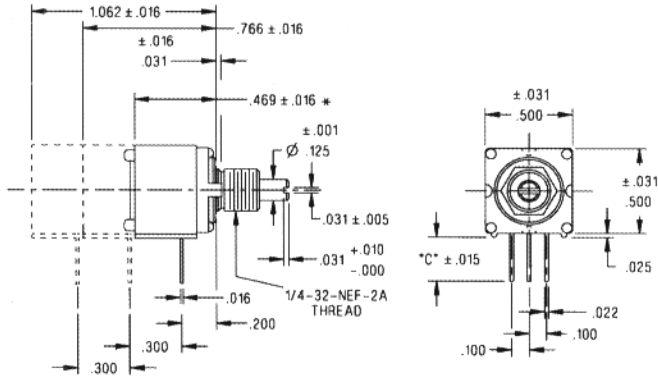
DIMENSIONS: MODELS 590 and 591

CONSTRUCTION FEATURES:

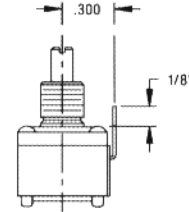
- Up to three sections
- Mounting-Bushing
- PC Support Plates
- Type A forward mount
- Type C rear mount
- Rotary switches
- Valley detents
- Solder hook terminals
- 3/8 Bush; 1/4 shaft
- Shaft seal
- Mounting seal
- Not sealed for board washing

CONSTRUCTION MATERIALS:

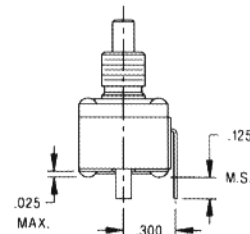
- Housing- Molded Thermoplastic-black
- Bushing- Brass
- Shaft- Brass
- Wiper- Metal contact spring



SOLDER LUG TERMINALS

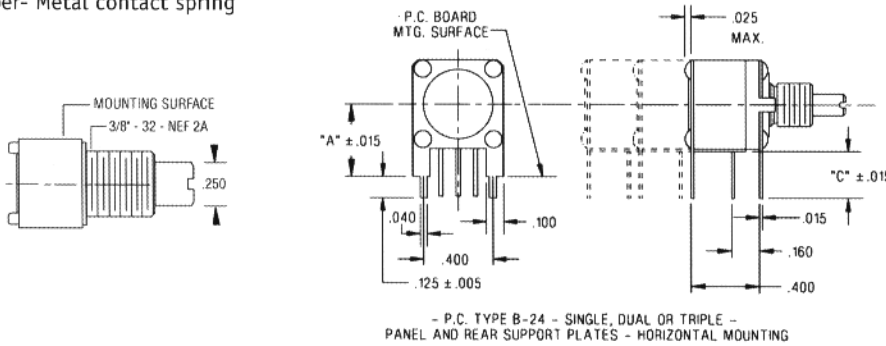


TYPE "A" MOUNTING



TYPE "C" MOUNTING

SINGLE, DUAL OR TRIPLE
(SECOND OR THIRD SECTION MAY BE AL SERIES ROTARY SWITCH)
PRINTED CIRCUIT TYPE B-22A
C TERMINAL LENGTH: .850 MAX.
STANDARD P.C. TERMINAL LENGTH: .250
* DIMENSION INCREASES TO .583 WITH CENTER DETENT



- P.C. TYPE B-24 - SINGLE, DUAL OR TRIPLE -
PANEL AND REAR SUPPORT PLATES - HORIZONTAL MOUNTING

ORDERING INFORMATION: MODELS 590 and 591

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	LOCATING PIN 7: None 1: SGL, 9 o'clock 2: SGL, 3 o'clock 5: DBL, 3 & 9 o'clock	MATCHING METRIC Shaft length code, mm Single Shaft 10: 10mm 13: 13mm 16: 16mm 22: 22mm 25: 25mm	MATCHING ENGLISH Shaft length code, in 64th in. Single Shaft 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 two significant digits, third 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* E: PC terminals with B-24-5 support plate* F: PC terminals with B-24-1 support plate* L: PC terminals 0.850" L *No hardware	
MECHANICAL CONFIGURATION X: None (single shaft S, D, T sections) S: Single w/rotary switch P: Dual w/rotary switch D: Single w/center detent (1/4 Dia. Bush) E: Dual w/center detent (1/4 Dia. Bush)	METRIC BUSHING SIZE & SHAFT DIAMETER M: M7 x .75, 6mm L Shaft, 3mm Dia.	ENGLISH 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. P: 3/8 Dia. x 3/8 L Plastic shaft, 1/4 Dia.							

To order or for custom applications, call 800-874-1874 or Fax 915-858-8450

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