

## Precision Series S - 1/2" Watt 1/8" shaft diameter



Precision series S/RV6 potentiometers are ideal for applications requiring high reliability and a compact size.

#### **FEATURES:**

- · hot molded carbon element
- one piece housing and bushing
- stainless-steel shaft
- · compact size
- quality meeting or exceeding MIL-R-94 QPL listed

## **ELECTRICAL SPECIFICATIONS:**

Resistance range, linear taper:  $100 \Omega$  to  $5 \text{ Meg } \Omega$ 

Resistance range, logarithmic taper: 150  $\Omega$  to 1 Meg  $\Omega$ 

Resistance tolerance: ±10% or ±20%

Resistance taper: linear, logarithmic, reverse logarithmic;

other tapers by special order

Power rating: 0.5 watts at 70°C derated to 0 watts at 120°C

Insulation resistance: dry: 10K Meg  $\Omega$ 

wet: 100K Meg  $\Omega$ 

Dielectric strength: 750 V RMS at sea level

Operating voltage: 350 V, subject to power rating

### **ENVIRONMENTAL SPECIFICATIONS:**

Operating temperature: - 65°C to +125°C

Resistance to soldering heat: 350°C for 5 seconds

**Humidity range:** per MIL-R-94 **Vibration range:** per MIL-R-94 **Shock resistance:** per MIL-R-94 **Load life:** 1000 hours at 70°C

#### **OPTIONS:**

- · custom shafts and bushings
- special tapers
- customer specified marking

### **MECHANICAL SPECIFICATIONS:**

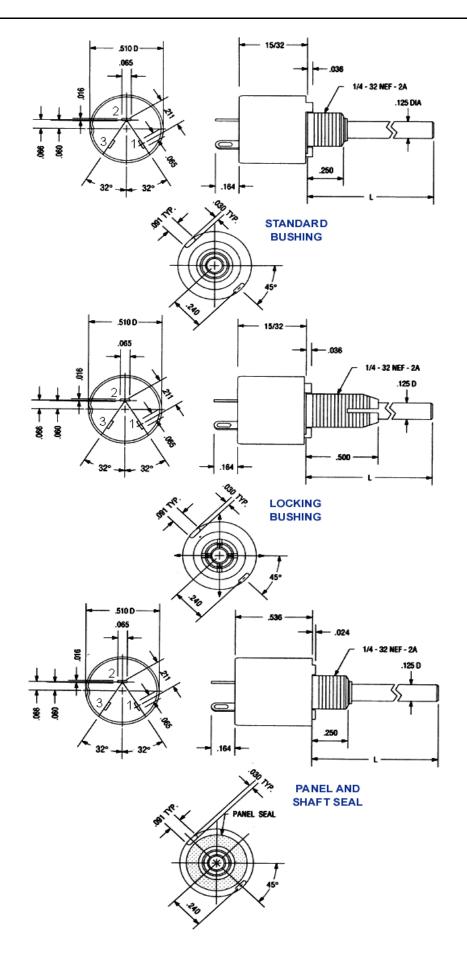
**Mechanical rotation:** 295°

Operating torque: 0.5 oz/in to 6 oz/in

Rotational life: 25,000 cycles



# **DRAWING:**





# **ORDERING INFORMATION:**

|              |             | Bushing         |                    |                                       |                   |               | Shaft              |
|--------------|-------------|-----------------|--------------------|---------------------------------------|-------------------|---------------|--------------------|
| Series       | Bushing     | Length          | Taper              | Resistance Value                      | Tolerance         | Shaft Style   | Length             |
| S = series S | Blank =     | Blank = 1/4"    | <b>U</b> = linear  | Total resistance value in             | <b>1</b> = 10% of | R = round S   | <b>16</b> = 1/2" 2 |
|              | standard    |                 |                    | <b>Ω:</b> first 2 digits significant, | nominal           | = slotted F = | = 5/8" <b>24</b> = |
|              |             |                 |                    | third digit =                         |                   | flatted       | 3/4"               |
|              | L = locking | <b>6</b> = 3/8" | A =                | number of zeroes                      | <b>2</b> = 20% of |               | <b>28</b> = 7/8" : |
|              |             |                 | logarithmic        |                                       | nominal           |               | = 1"               |
|              | W = panel & |                 | <b>B</b> = reverse |                                       |                   |               | <b>36</b> = 1 1/8" |
|              | shaft steel |                 | logarithmic        |                                       |                   |               |                    |
|              |             |                 |                    |                                       |                   |               |                    |
|              |             |                 |                    |                                       |                   |               |                    |
|              |             |                 |                    |                                       |                   |               |                    |

Example: SLA1021S20

**note:** not all part number combinations are valid

| Style               | Bushing      | Switch      | Temperature & Moisture<br>Characteristics | Shaft Style | Shaft<br>Length | Resistance Value           | Taper & Tolerance          |
|---------------------|--------------|-------------|---|-------------|-----------------|----------------------------|----------------------------|
|                     | N = standard |             |   |             |                 |                            |                            |
| RV6 = MIL style RV6 |              | A = without | Y = as per MIL-R-94                       | S = slotted | L = 3/8"        | Total resistance value     | A = linear 10%             |
|                     | L = locking  | switch      |   | F = flatted | <b>B</b> = 1/2" | in Ω: first 2 digits       | <b>B</b> = linear 20%      |
|                     | S = panel &  |             |   |             | A = 5/8"        | significant, third digit = | C = logarithmic 10%        |
|                     | shaft seal   |             |   |             | <b>D</b> = 7/8" | number of zeroes           | <b>D</b> = logarithmic 20% |
|                     |              |             |   |             |                 |                            | E = reverse logarithmic    |
|                     |              |             |   |             |                 |                            | 10%                        |
|                     |              |             |   |             |                 |                            | F = reverse logarithmic    |
|                     |              |             |   |             |                 |                            | 20%                        |

Example: RV6LAYSA102C

note: not all part number combinations are valid

| Precision | Military   | Clarostat    | Allen Bradley | Ohmite |
|-----------|------------|--------------|---------------|--------|
| SU S28    | RV6NAYSD A | 392M / 382C3 | WA2G056S UA   | ASM    |
| SU S12    | RV6NAYSL A | 392M / 382C4 | WA2G024S UA   | N/A    |
| SLU S20   | RV6LAYSA A | 392M / 382C2 | WA2L040S UC   | AS     |
| SLU S28   | RV6LAYSD A | 393M / 382C5 | WA2L056S UC   | N/A    |
|           |            |              |               |        |
|           |            |              |               |        |
|           |            |              |               |        |
|           |            |              |               |        |