



## 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

### OPTIONS:

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

### ELECTRICAL SPECIFICATIONS:

**Resistance range, linear taper:** 100  $\Omega$  to 5 Meg  $\Omega$

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

**Resistance tolerance:**  $\pm 10\%$  or  $\pm 20\%$

**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

### MECHANICAL SPECIFICATIONS:

**Mechanical rotation:** 295°

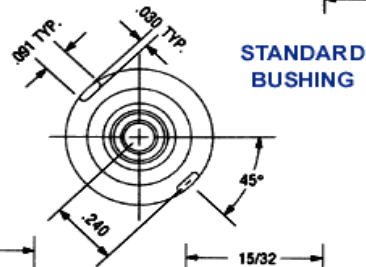
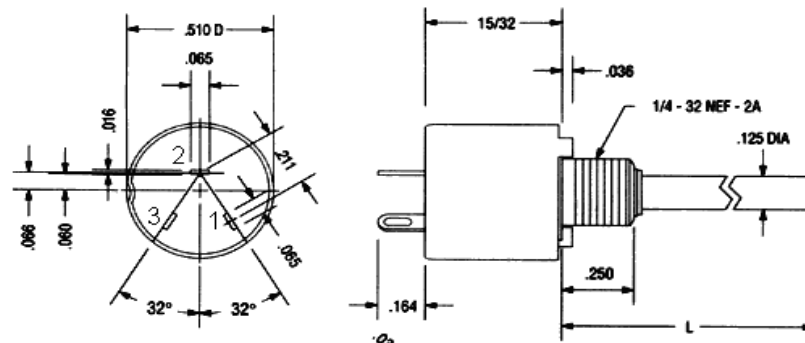
**Operating torque:** 0.5 oz/in to 6 oz/in

**Rotational life:** 25,000 cycles

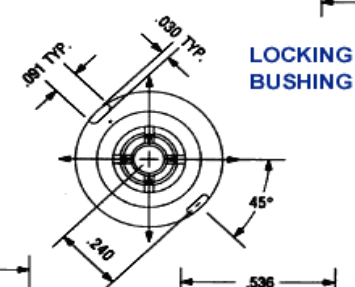
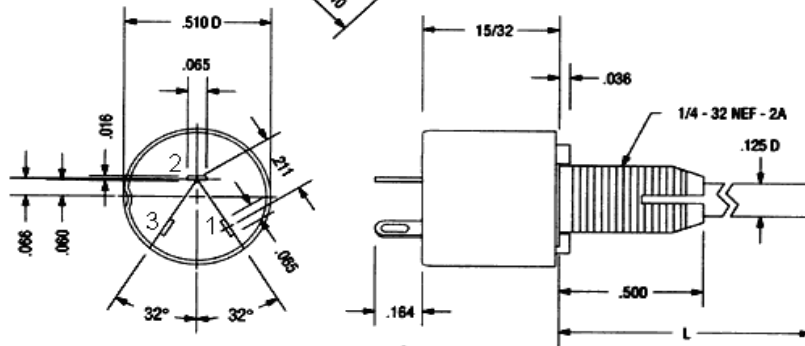


**DRAWING:**

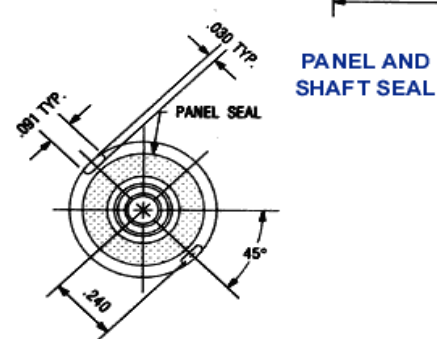
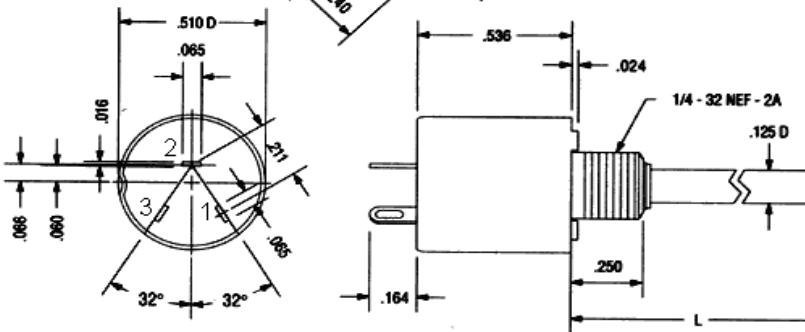
**MIL Style RV6**



**STANDARD  
BUSHING**



**LOCKING  
BUSHING**



**PANEL AND  
SHAFT SEAL**



## ORDERING INFORMATION:

| Ordering Information - Commercial Part Numbers                                        |                                                                                         |                                            |                                                                                   |                                                                                                                  |                                                            |                                                                |                                                                                                             |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Series                                                                                | Bushing                                                                                 | Bushing Length                             | Taper                                                                             | Resistance Value                                                                                                 | Tolerance                                                  | Shaft Style                                                    | Shaft Length                                                                                                |
| <b>S</b> = series S                                                                   | <b>Blank</b> = standard<br><br><b>L</b> = locking<br><br><b>W</b> = panel & shaft steel | <b>Blank</b> = 1/4"<br><br><b>6</b> = 3/8" | <b>U</b> = linear<br><br><b>A</b> = logarithmic<br><b>B</b> = reverse logarithmic | <b>Total resistance value in <math>\Omega</math>:</b> first 2 digits significant, third digit = number of zeroes | <b>1</b> = 10% of nominal<br><br><b>2</b> = 20% of nominal | <b>R</b> = round<br><b>S</b> = slotted<br><b>F</b> = flattened | <b>16</b> = 1/2" <b>20</b> = 5/8" <b>24</b> = 3/4"<br><b>28</b> = 7/8" <b>32</b> = 1"<br><b>36</b> = 1 1/8" |
| <b>Example: SLA1021S20</b><br><b>note:</b> not all part number combinations are valid |                                                                                         |                                            |                                                                                   |                                                                                                                  |                                                            |                                                                |                                                                                                             |

| Ordering Information - Military Part Numbers                                            |                                                                                |                           |                                        |                                            |                                                                          |                                                                                                                  |                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------|----------------------------------------|--------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Style                                                                                   | Bushing                                                                        | Switch                    | Temperature & Moisture Characteristics | Shaft Style                                | Shaft Length                                                             | Resistance Value                                                                                                 | Taper & Tolerance                                                                                                                                                                      |
| <b>RV6</b> = MIL style RV6                                                              | <b>N</b> = standard<br><br><b>L</b> = locking<br><b>S</b> = panel & shaft seal | <b>A</b> = without switch | <b>Y</b> = as per MIL-R-94             | <b>S</b> = slotted<br><b>F</b> = flattened | <b>L</b> = 3/8"<br><b>B</b> = 1/2"<br><b>A</b> = 5/8"<br><b>D</b> = 7/8" | <b>Total resistance value in <math>\Omega</math>:</b> first 2 digits significant, third digit = number of zeroes | <b>A</b> = linear 10%<br><b>B</b> = linear 20%<br><b>C</b> = logarithmic 10%<br><b>D</b> = logarithmic 20%<br><b>E</b> = reverse logarithmic 10%<br><b>F</b> = reverse logarithmic 20% |
| <b>Example: RV6LAYSA102C</b><br><b>note:</b> not all part number combinations are valid |                                                                                |                           |                                        |                                            |                                                                          |                                                                                                                  |                                                                                                                                                                                        |

| Series S Cross Reference |            |              |               |        |
|--------------------------|------------|--------------|---------------|--------|
| 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    |