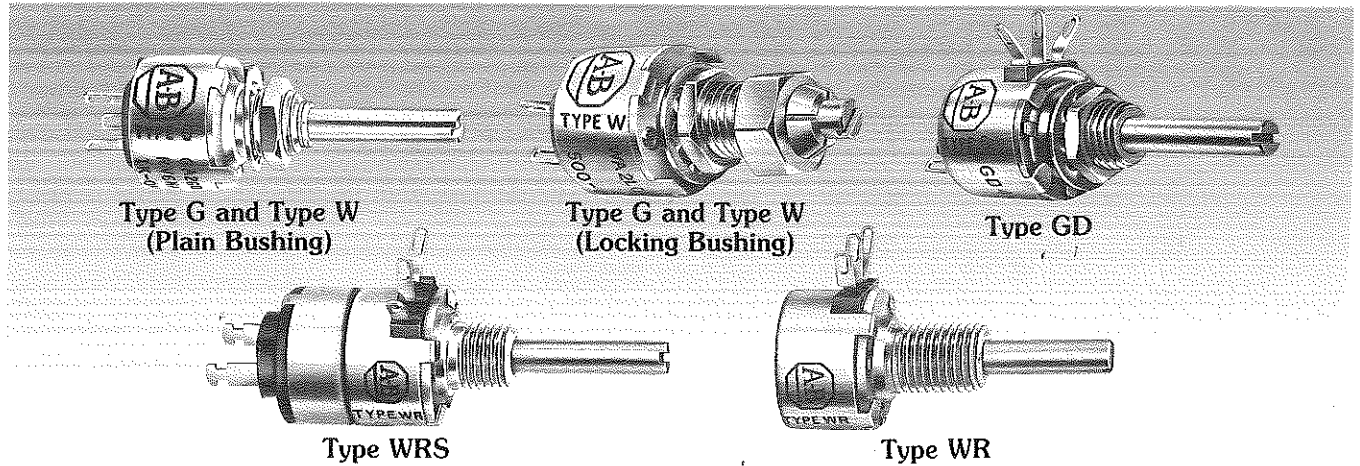




# Hot-Molded Panel Potentiometers



## Features

- Immersion Sealed .....
- Linear Tapers .....
- Style RV6 .....

## Benefits

- Washable
- Versatility
- Meets MIL-R-94 Requirements (Types G and W)

## SPECIFICATIONS

### General

Temperature range —  $-55^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$ .

Total resistance values — 100 ohms to 5.0 megohms.

Total resistance tolerances —  $\pm 10\%$

Tapers — Available in the following resistance ranges:

TAPER	TOTAL RESISTANCE RANGE
U	100 Ohms to 5.0 Megohms

See taper chart on Page 47.

**Switches** — Type WRS has a single pole single throw switch. It turns on at start of clockwise rotation. Switch rating for resistive loads is 1.0 ampere 125 volt 60 Hertz. Switch can be operated 10,000 mechanical cycles at full rating.

All G and W potentiometers sold through our electronic distributors include the RV6 style part number per MIL-R-94.

## Electrical

Power – 0.5 watt maximum at +70°C (single resistors only) for “U” linear taper provided voltage rating is not exceeded.

Type GD – Maximum power ratings for “U” linear tapers at +70°C with both elements in the circuit are as follows:

WATTS							
Front Resistor	0.5	0.46	0.4	0.35	0.3	0.2	0
Rear Resistor	0	0.2	0.3	0.35	0.4	0.46	0.5

Front resistor is adjacent to the actuator. Voltage rating must not be exceeded.

Power derating – Derate power linearly from +70°C to zero at +120°C. Derate power 50 percent for non-metallic

mounting. For rheostat applications derate power directly with shaft or actuator position.

Voltage – 350 volts maximum working voltage (RMS or DC), or as determined by  $E_{max} = \sqrt{PR}$ , whichever is less (at sea level).

Dielectric withstanding voltage – Maximum continuous voltage 350 volts (RMS or DC) at sea level. Will withstand a one second test of 750 volts (RMS) at sea level or 350 volts (RMS) at 3.4 inches (86,36mm) mercury.

Insulation resistance – 1000 megohms minimum for clean and dry conditions at +25°C.

Voltage characteristics – 0.005 percent per volt or 0.5 ohm, whichever is greater.

## Operational

Load life – 10 percent maximum change in total resistance as a result of a 1000 hour test at rated power across entire element in still air at +70°C (1.5 hours “ON” – 0.5 hour “OFF”).

Rotational life – 10 percent maximum change in total resistance as a result of a 50,000 mechanical cycle life test without load.

## Mechanical

Shafts – Diameter of shafts .125 inch (3,18 mm) with screwdriver slotted endings. See dimensions for standard shaft lengths.

Bushings – All bushings have a 32-NEF-2A thread and are .250 inch (6,35 mm) in diameter.

After lock nuts on locking bushings are tightened with a torque of 8 inch-pounds (9,22 kfg-cm) shafts will not turn with torques up to 20 inch-ounces (1,44 kfg-cm).

Hardware – Resistors are normally supplied with mounting nut, M-4721, and one internal tooth lock washer, M-4748. Resistors with shaft lock bushings are supplied with one lock nut, M-4761, in addition to the above.

Rotation – Mechanical rotation for resistors with or without switch is 295° ±5°.

Electrical rotation is 270° nominal without switch and 248° nominal with switch.

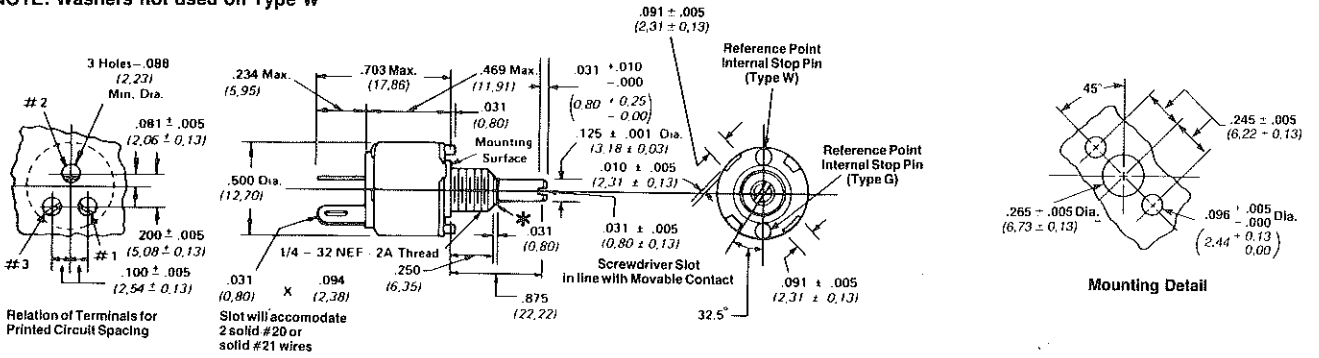
Locating lug options – Locating lug options are available so resistors may be indexed with respect to the surface on which they are mounted. See dimensions.

See page 65 for explanation of part numbers.

# DIMENSIONS

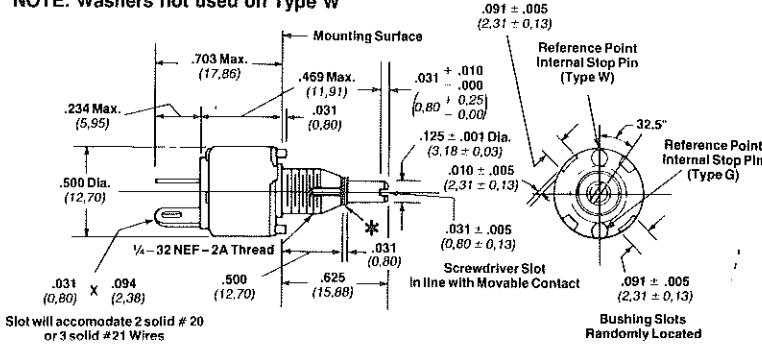
## Type G and Type W Plain Bushing

\*NOTE: Washers not used on Type W

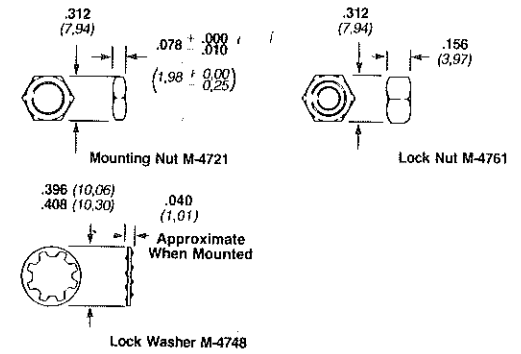


## Type G and Type W Locking Bushing

\*NOTE: Washers not used on Type W

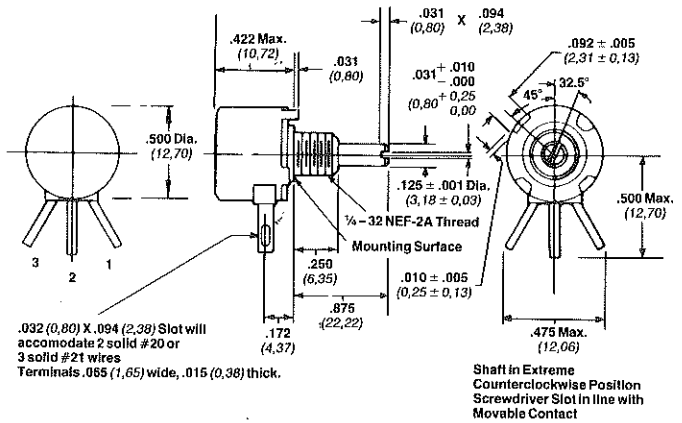
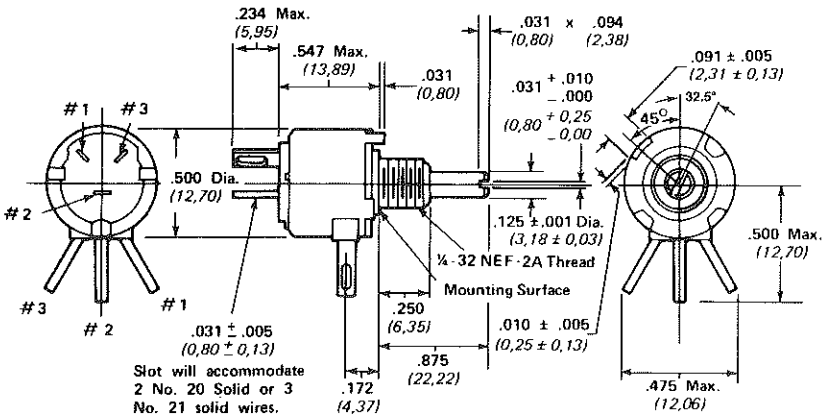


## Hardware

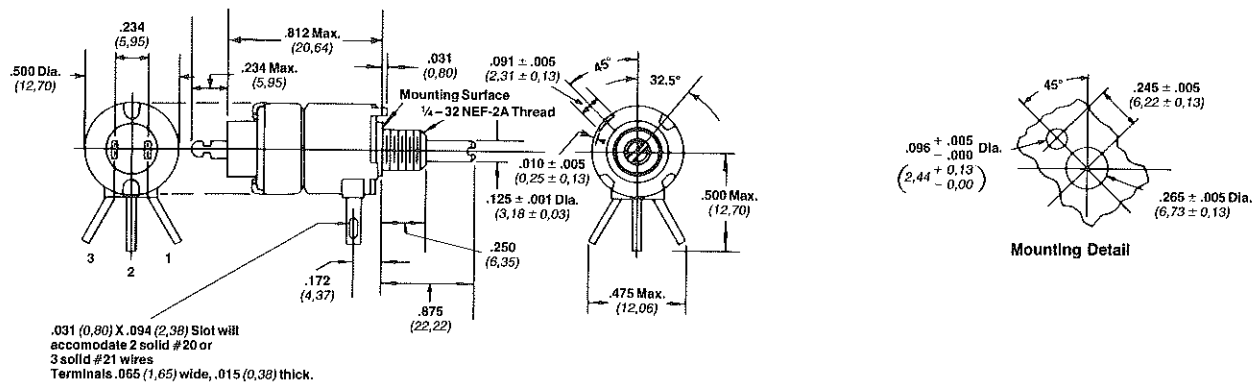


## Type GD

## Type WR



## Type WRS



## Distributor Stocked Potentiometers

## Type W and G 1/2" Locking Bushing

Resistance Value (Ohms)	WA2L040S	GA2L040S	MIL-R-94 Designation
100	WA2L040S101UC	GA2L040S101UC	RV6LAYS101A
200	WA2L040S201UC	—	RV6LAYS201A
250	WA2L040S251UC	GA2L040S251UC	RV6LAYS251A
500	WA2L040S501UC	GA2L040S501UC	RV6LAYS501A
1K	WA2L040S102UC	GA2L040S102UC	RV6LAYS102A
2K	WA2L040S202UC	—	RV6LAYS202A
2.5K	WA2L040S252UC	GA2L040S252UC	RV6LAYS252A
5K	WA2L040S502UC	GA2L040S502UC	RV6LAYS502A
10K	WA2L040S103UC	GA2L040S103UC	RV6LAYS103A
20K	WA2L040S203UC	—	RV6LAYS203A
25K	WA2L040S253UC	GA2L040S253UC	RV6LAYS253A
50K	WA2L040S503UC	GA2L040S503UC	RV6LAYS503A
100K	WA2L040S104UC	GA2L040S104UC	RV6LAYS104A
200K	WA2L040S204UC	—	RV6LAYS204A
250K	WA2L040S254UC	GA2L040S254UC	RV6LAYS254A
500K	WA2L040S504UC	GA2L040S504UC	RV6LAYS504A
1 Meg.	WA2L040S105UC	GA2L040S105UC	RV6LAYS105A
2 Meg.	WA2L040S205UC	—	RV6LAYS205A
2.5 Meg.	WA2L040S255UC	GA2L040S255UC	RV6LAYS255A
5 Meg.	WA2L040S505UC	GA2L040S505UC	RV6LAYS505A

— = Not available from Distributor Stock.

## Type W and G 1/4" Bushing

Resistance Value (Ohms)	WA2G056S	GA2G056S	MIL-R-94 Designation
100	WA2G056S101UA	GA2G056S101UA	RV6NAYS101A
200	WA2G056S201UA	—	RV6NAYS201A
250	WA2G056S251UA	GA2G056S251UA	RV6NAYS251A
500	WA2G056S501UA	GA2G056S501UA	RV6NAYS501A
1K	WA2G056S102UA	GA2G056S102UA	RV6NAYS102A
2K	WA2G056S202UA	—	RV6NAYS202A
2.5K	WA2G056S252UA	GA2G056S252UA	RV6NAYS252A
5K	WA2G056S502UA	GA2G056S502UA	RV6NAYS502A
10K	WA2G056S103UA	GA2G056S103UA	RV6NAYS103A
20K	WA2G056S203UA	—	RV6NAYS203A
25K	WA2G056S253UA	GA2G056S253UA	RV6NAYS253A
50K	WA2G056S503UA	GA2G056S503UA	RV6NAYS503A
100K	WA2G056S104UA	GA2G056S104UA	RV6NAYS104A
200K	WA2G056S204UA	—	RV6NAYS204A
250K	WA2G056S254UA	GA2G056S254UA	RV6NAYS254A
500K	WA2G056S504UA	GA2G056S504UA	RV6NAYS504A
1 Meg.	WA2G056S105UA	GA2G056S105UA	RV6NAYS105A
2 Meg.	WA2G056S205UA	GA2G056S205UA	RV6NAYS205A
2.5 Meg.	WA2G056S255UA	GA2G056S255UA	RV6NAYS255A
5 Meg.	WA2G056S505UA	GA2G056S505UA	RV6NAYS505A

## Type WR and WRS 1/4" Plain Bushing

Resistance Value (Ohms)	Type WR Basic Type 1/4" Plain Bushing	Type WRS Switch Type 1/4" Plain Bushing
100	WRA1G056S101U	WRS1G056S101U
200	WRA1G056S201U	WRS1G056S201U
250	WRA1G056S251U	WRS1G056S251U
500	WRA1G056S501U	WRS1G056S501U
1K	WRA1G056S102U	WRS1G056S102U
2K	WRA1G056S202U	WRS1G056S202U
2.5K	WRA1G056S252U	WRS1G056S252U
5K	WRA1G056S502U	WRS1G056S502U
10K	WRA1G056S103U	WRS1G056S103U
20K	WRA1G056S203U	WRS1G056S203U
25K	WRA1G056S253U	WRS1G056S253U
50K	WRA1G056S503U	WRS1G056S503U
100K	WRA1G056S104U	WRS1G056S104U
200K	WRA1G056S204U	WRS1G056S204U
250K	WRA1G056S254U	WRS1G056S254U
500K	WRA1G056S504U	WRS1G056S504U
1 Meg.	WRA1G056S105U	WRS1G056S105U
2 Meg.	WRA1G056S205U	WRS1G056S205U
2.5 Meg.	WRA1G056S255U	WRS1G056S255U
5 Meg.	WRA1G056S505U	WRS1G056S505U

## Type GD Dual Section 1/4" Plain Bushing

Resistance Value (Ohms)	Type GD Dual Section 1/4" Plain Bushing
100	GD1G056S101UA
200	GD1G056S201UA
250	GD1G056S251UA
500	GD1G056S501UA
1K	GD1G056S102UA
2K	GD1G056S202UA
2.5K	GD1G056S252UA
5K	GD1G056S502UA
10K	GD1G056S103UA
20K	GD1G056S203UA
25K	GD1G056S253UA
50K	GD1G056S503UA
100K	GD1G056S104UA
200K	GD1G056S204UA
250K	GD1G056S254UA
500K	GD1G056S504UA
1 Meg.	GD1G056S105UA
2 Meg.	GD1G056S205UA
2.5 Meg.	GD1G056S255UA
5 Meg.	GD1G056S505UA