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MIL Spec Potentiometers



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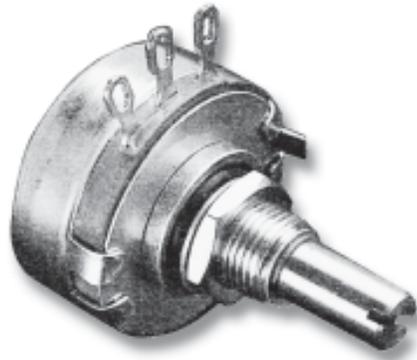


MIL Style RV5 pg. 17

On-line Quotation Service is available at
<http://www.potentiometers.com>

MIL Style RV4

2 watt - 1/4" shaft diameter



Series K/RV4 potentiometers are suitable for both military and commercial applications. They can easily be customized to meet special requirements.

Features

- hot molded carbon element
- gold plated terminals
- stainless steel shaft and housing
- meets or exceeds specifications of MIL-R-94 - QPL Listed

Options

- custom shafts and bushings
- special tapers
- fourth (center) terminal
- high life
- attached switch

Electrical specifications

Resistance Range-linear taper
50 ohms to 5 megohms

Resistance Range-logarithmic taper
150 ohms to 1 megohm

Resistance Tolerance
 $\pm 10\%$ or $\pm 20\%$

Resistance Taper
linear, logarithmic, reverse logarithmic
(other tapers by special order)

Power Rating
2 watts @ 70 °C derated to
0 watts @ 120 °C

Insulation Resistance
dry: 10K Megohms
wet: 100K Megohms

Dielectric Strength
900 V RMS at sea level

Operating Voltage
500 V subject to power rating

Mechanical Specifications

Mechanical Rotation
314°

Operating Torque
1 oz/in to 6 oz/in

Rotational Life
25,000 cycles

Environmental Specifications

Operating Temperature
-65 °C to +125 °C

Resistance to Soldering Heat
350 °C to 5 seconds

Humidity Range
per Mil-R-94

Vibration Range
per Mil-R-94

Shock Resistance
per Mil-R-94

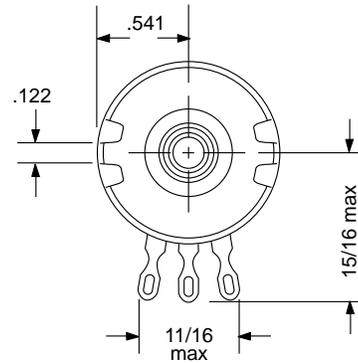
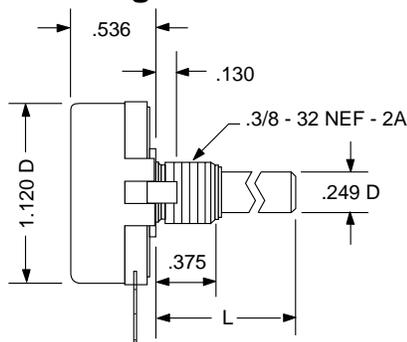
Load Life
1000 hr at 70 °C

MIL Style RV4

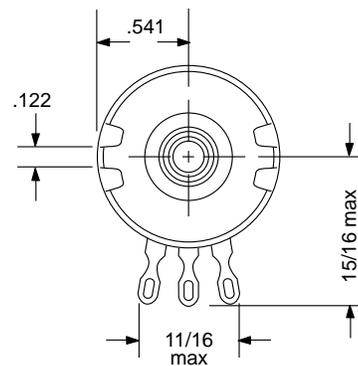
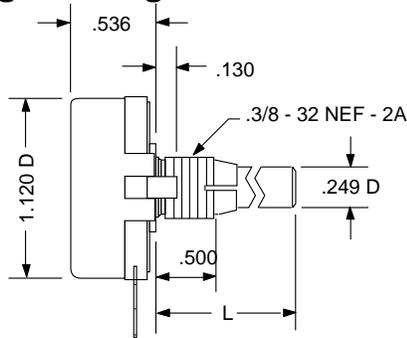
2 watt - 1/4" shaft diameter



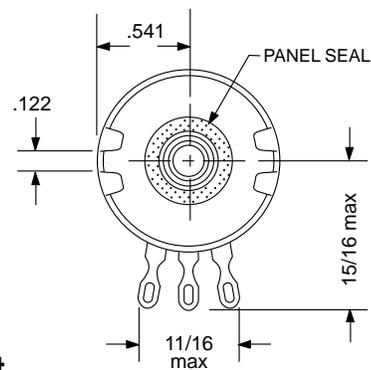
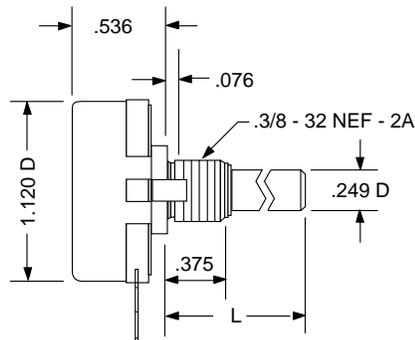
Standard Configuration



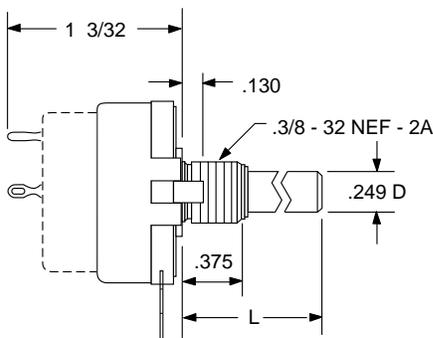
Locking Bushing



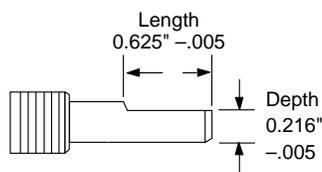
Panel Seal



With SPST Switch

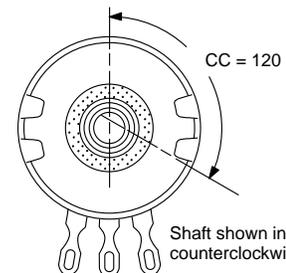


Flatted Shaft



Notes:

1. Flatted Shaft is not available with Locking or Shaft Seal Options
2. Flat will extend to within 0.031" (0.79) of mounting bushing where shaft length will not permit standard flat.



Shaft shown in extreme counterclockwise position.

MIL Style RV4

2 watt - 1/4" shaft diameter

Ordering Information - Military Part Numbers

Carbon or Conductive Plastic element available

Style	Bushing	Switch	Temperature and Moisture Characteristics:	Shaft Style:	Shaft Length:	Resistance Value:	Taper and Tolerance:
RV4 = MIL style RV4	N = Standard L = Locking S = Panel & Shaft Seal	A = Without Switch B = SPST Switch	Y = as per MIL-R-94	S = Slotted F = Flatted	B = 1/2" A = 5/8" D = 7/8" G = 1 1/4" J = 2" K = 2 1/2"	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	A = Linear $\pm 10\%$ B = Linear $\pm 20\%$ C = Log $\pm 10\%$ D = Log $\pm 20\%$ E = Rev. Log $\pm 10\%$ F = Rev. Log $\pm 20\%$

Example Part Number: RV4NAYSB103A

Note: not all part number combinations are valid.

More options and combinations are available on commercial versions

Ordering Information - Commercial Part Numbers

Carbon element standard.

Conductive Plastic available in some configurations. Contact sales rep for information.

Series	Bushing	Switch	Taper	Resistance Value:	Tolerance:	Shaft Style:	Shaft Length:
K = Series K	blank = Std. L = Locking W = Panel & Shaft Seal	blank = No Switch S = SPST Switch	U = Linear A = Log B = Rev. Log	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	1 = 10% of Nominal 2 = 20% of Nominal	R = Round S = Slotted F = Flatted	16 = 1/2" 20 = 5/8" 24 = 3/4" 28 = 7/8" 32 = 1" 40 = 1 1/4" 48 = 1 1/2" 64 = 2" 80 = 2 1/2" 96 = 3"

Example Part Number: KSU1031R16

Note: not all part number combinations are valid.

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MIL Style 2RV7

2 watt multiple element - 1/4" shaft diameter



Series KK/2RV7 potentiometers are suitable for both military and commercial applications requiring multiple elements. Series KKK Triple unit is commercial only. These units can be customized to meet special requirements.

Features

- hot molded carbon element
- gold plated terminals
- stainless steel shaft and housing
- meets or exceeds specifications of MIL-R-94 - QPL Listed

Options

- custom shafts and bushings
- special tapers
- fourth (center) terminal
- concentric shafts
- attached switches

Electrical specifications

- Resistance Range-linear taper
50 ohms to 5 megohms
- Resistance Range-logarithmic taper
150 ohms to 1 megohm
- Resistance Tolerance
 $\pm 10\%$ or $\pm 20\%$
- Resistance Taper
linear, logarithmic, reverse logarithmic
(other tapers by special order)
- Power Rating
2 watts @ 70 °C derated to
0 watts @ 120 °C
- Insulation Resistance
dry: 10K Megohms
wet: 100K Megohms

- Dielectric Strength
900 V RMS at sea level
- Operating Voltage
500 V subject to power rating

Mechanical Specifications

- Mechanical Rotation
314°
- Operating Torque
1 oz/in to 12 oz/in
- Rotational Life
25,000 cycles

Environmental Specifications

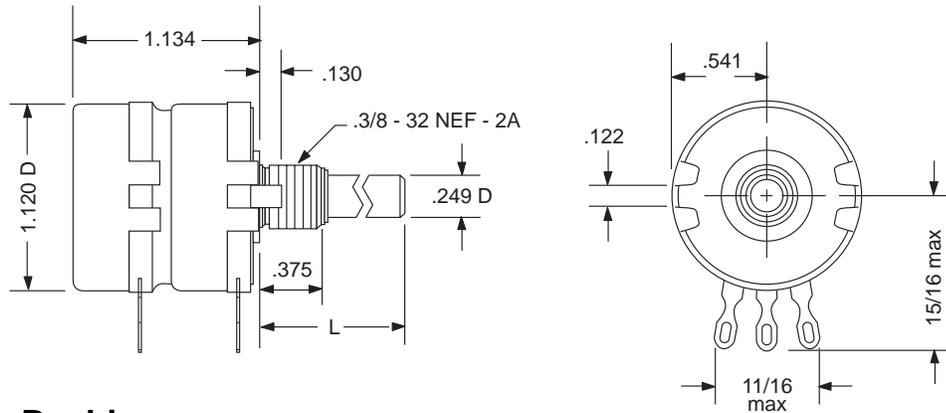
- Operating Temperature
-65 °C to +125 °C
- Resistance to Soldering Heat
350 °C to 5 seconds
- Humidity Range
per Mil-R-94
- Vibration Range
per Mil-R-94
- Shock Resistance
per Mil-R-94
- Load Life
1000 hr at 70 °C

MIL Style 2RV7

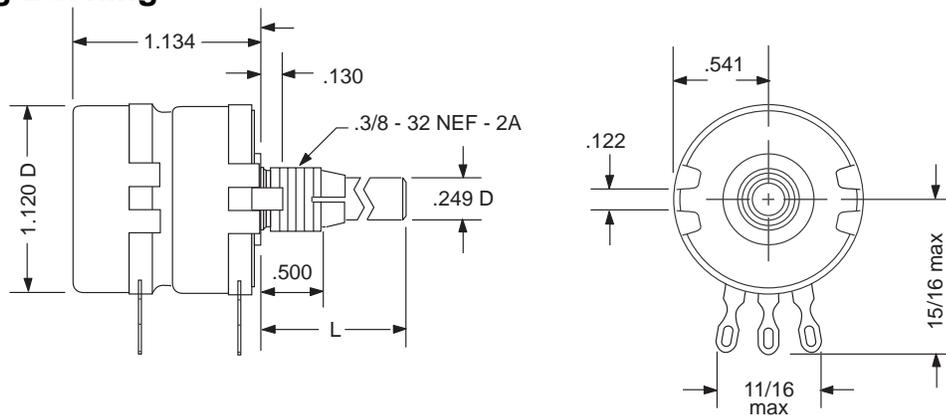
2 watt multiple element - 1/4" shaft diameter



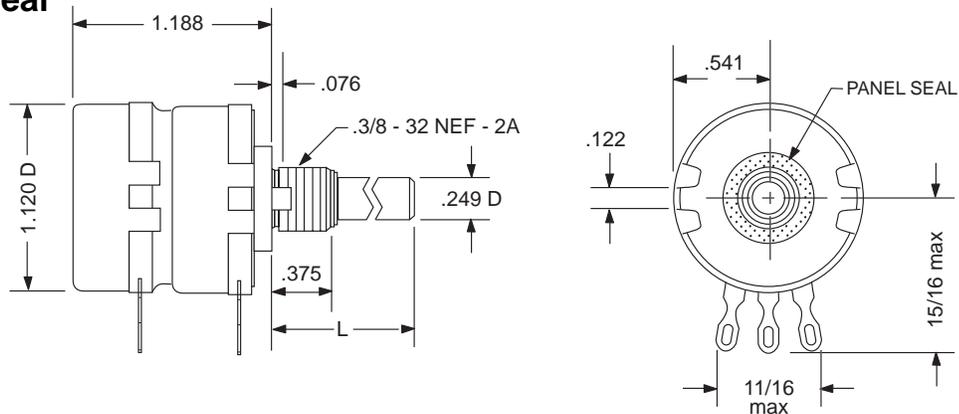
Standard Configuration



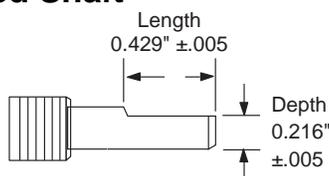
Locking Bushing



Panel Seal

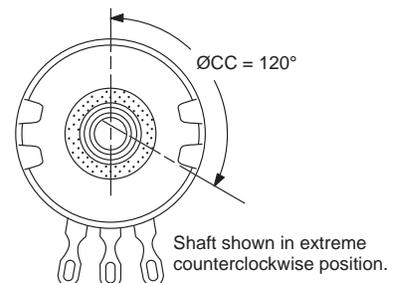


Flatted Shaft



Notes:

1. Flatted Shaft is not available with Locking or Shaft Seal Options
2. Flat will extend to within 0.031 " (0.79) of mounting bushing where shaft length will not permit standard flat.



MIL Style 2RV7

2 watt multiple element - 1/4" shaft diameter

Ordering Information - Military Part Numbers

Carbon or Conductive Plastic element available

Style	Bushing	Temperature and Moisture Characteristics:	Shaft Style:	Shaft Length:	Resistance Value:	Taper and Tolerance:
2RV7 = MIL style 2RV7	N = Standard L = Locking S = Panel & Shaft Seal	Y = as per MIL-R-94	S = Slotted F = Flatted	B = 1/2" A = 5/8" D = 7/8" G = 1 1/4" J = 2" K = 2 1/2"	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	A = Linear $\pm 10\%$ B = Linear $\pm 20\%$ C = Log $\pm 10\%$ D = Log $\pm 20\%$ E = Rev. Log $\pm 10\%$ F = Rev. Log $\pm 20\%$

Example Part Number: 2RV7NYS103103A

Note: not all part number combinations are valid.

More options and combinations are available on commercial versions

Ordering Information - Commercial Part Numbers

Carbon element standard.

Conductive Plastic available in some configurations. Contact sales rep for information.

Series	Bushing	Switch	Taper	Resistance Value:	Tolerance:	Shaft Style:	Shaft Length:
KK = Series KK - dual element KKK = Series KKK - triple element	blank = Stand. L = Locking W = Panel & Shaft Seal	blank = No Switch S = SPST Switch	U = Linear A = Log B = Rev. Log	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	1 = 10% of Nominal 2 = 20% of Nominal	R = Round S = Slotted F = Flatted	16 = 1/2" 20 = 5/8" 24 = 3/4" 28 = 7/8" 32 = 1" 40 = 1 1/4" 48 = 1 1/2" 64 = 2" 80 = 2 1/2" 96 = 3"

Example Part Number: KKK1031S16

Note: A switch section, if selected, will be the second section for a KK unit, or the third section for a KKK unit

Note: not all part number combinations are valid.

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MIL Style RV2

1 watt - 1/4" shaft diameter



Series N/RV2 potentiometers are suitable for both military and commercial applications. They can easily be customized to meet special requirements.

Features

- hot molded carbon element
- gold plated terminals
- one piece brass housing
- stainless steel shaft
- meets or exceeds specifications of MIL-R-94 - QPL Listed

Options

- custom shafts and bushings
- special tapers
- fourth (center) terminal
- attached switches

Electrical specifications

- Resistance Range-linear taper
100 ohms to 5 megohms
- Resistance Range-logarithmic taper
150 ohms to 1 megohm
- Resistance Tolerance
 $\pm 10\%$ or $\pm 20\%$
- Resistance Taper
linear, logarithmic, reverse logarithmic
(other tapers by special order)
- Power Rating
1 watt @ 70 °C derated to
0 watts @ 120 °C
- Insulation Resistance
dry: 10K Megohms
wet: 100K Megohms

- Dielectric Strength
900 V RMS at sea level
- Operating Voltage
500 V subject to power rating

Mechanical Specifications

- Mechanical Rotation
300°
- Operating Torque
1 oz/in to 6 oz/in
- Rotational Life
25,000 cycles

Environmental Specifications

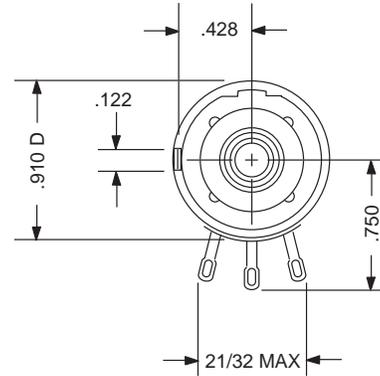
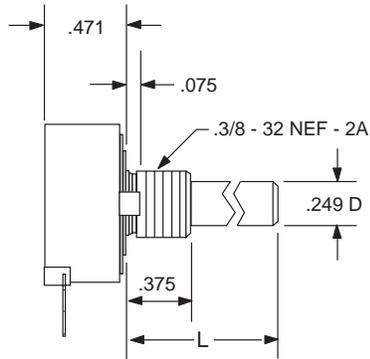
- Operating Temperature
-65 °C to +125 °C
- Resistance to Soldering Heat
350 °C to 5 seconds
- Humidity Range
per Mil-R-94
- Vibration Range
per Mil-R-94
- Shock Resistance
per Mil-R-94
- Load Life
1000 hr at 70 °C

MIL Style RV2

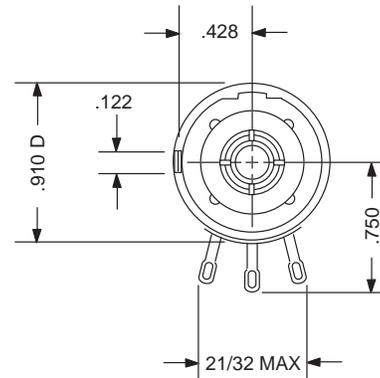
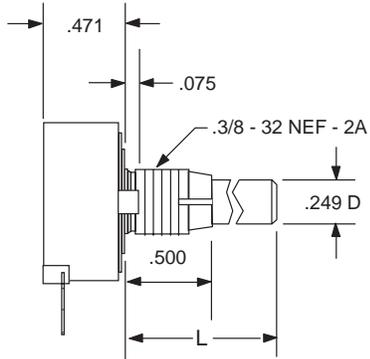
1 watt - 1/4" shaft diameter



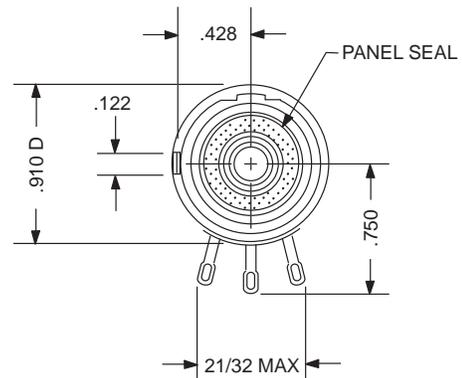
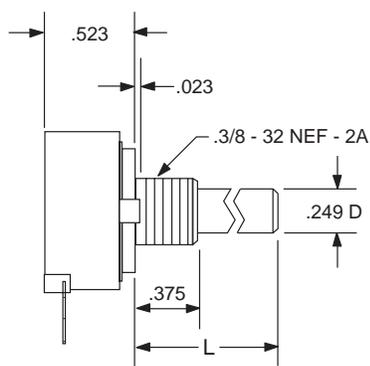
Standard Configuration



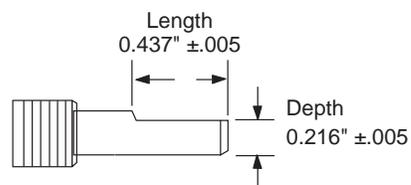
Locking Bushing



Panel Seal



Flatted Shaft



.Note:
Flatted Shaft is not available
with Locking Option

MIL Style RV2

1 watt - 1/4" shaft diameter

Ordering Information - Military Part Numbers

Carbon or Conductive Plastic element available

Style	Bushing	Switch	Temperature and Moisture Characteristics:	Shaft Style:	Shaft Length:	Resistance Value:	Taper and Tolerance:
RV2 = MIL style RV2	N = Standard L = Locking S = Panel & Shaft Seal	A = Without Switch B = SPST Switch	Y = as per MIL-R-94	S = Slotted F = Flatted	B = 1/2" A = 5/8" D = 7/8" G = 1 1/4" J = 2" K = 2 1/2"	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	A = Linear $\pm 10\%$ B = Linear $\pm 20\%$ C = Log $\pm 10\%$ D = Log $\pm 20\%$ E = Rev. Log $\pm 10\%$ F = Rev. Log $\pm 20\%$

Example Part Number: RV2NAYS103A

Note: not all part number combinations are valid.

More options and combinations are available on commercial versions

Ordering Information - Commercial Part Numbers

Carbon element standard.

Conductive Plastic available in some configurations. Contact sales rep for information.

Series	Bushing	Switch	Taper	Resistance Value:	Tolerance:	Shaft Style:	Shaft Length:
N = Series N	blank = Std. L = Locking W = Panel & Shaft Seal	blank = No Switch S = SPST Switch	U = Linear A = Log B = Rev. Log	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	1 = 10% of Nominal 2 = 20% of Nominal	R = Round S = Slotted F = Flatted	16 = 1/2" 20 = 5/8" 24 = 3/4" 28 = 7/8" 32 = 1" 40 = 1 1/4"

Example Part Number: NLA7511S28

Note: not all part number combinations are valid.

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MIL Style RV6

1/2 watt - 1/8" shaft diameter



Series S/RV6 potentiometers are suitable for applications requiring high reliability and a compact size.

Features

- hot molded carbon element
- one piece brass housing and bushing
- stainless steel shaft
- Compact size
- meets or exceeds specifications of MIL-R-94 - QPL Listed

Options

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

Electrical specifications

- Resistance Range-linear taper
100 ohms to 5 megohms
- Resistance Range-logarithmic taper
150 ohms to 1 megohm
- Resistance Tolerance
 $\pm 10\%$ or $\pm 20\%$
- Resistance Taper
linear, logarithmic, reverse logarithmic
(other tapers by special order)
- Power Rating
.5 watts @ 70 °C derated to
0 watts @ 120 °C
- Insulation Resistance
dry: 10K Megohms
wet: 100K Megohms

Dielectric Strength

750 V RMS at sea level

Operating Voltage

350 V subject to power rating

Mechanical Specifications

Mechanical Rotation

295°

Operating Torque

.5 oz/in to 6 oz/in

Rotational Life

25,000 cycles

Environmental Specifications

Operating Temperature

-65 °C to +125 °C

Resistance to Soldering Heat

350 °C to 5 seconds

Humidity Range

per Mil-R-94

Vibration Range

per Mil-R-94

Shock Resistance

per Mil-R-94

Load Life

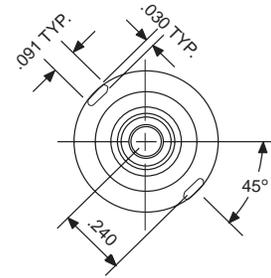
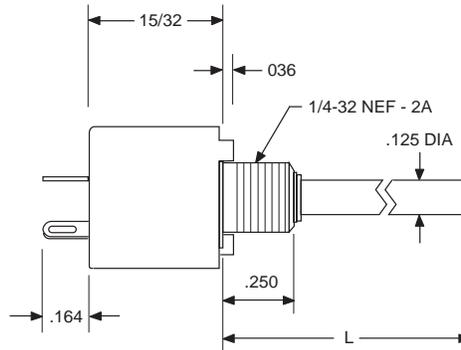
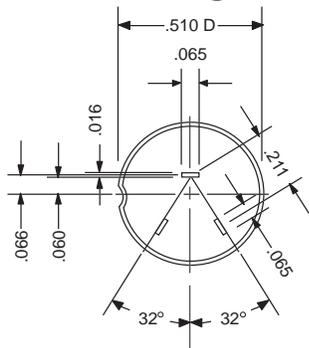
1000 hr at 70 °C

MIL Style RV6

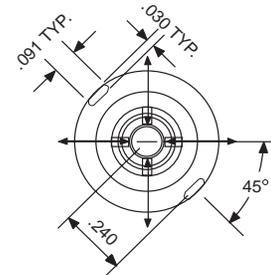
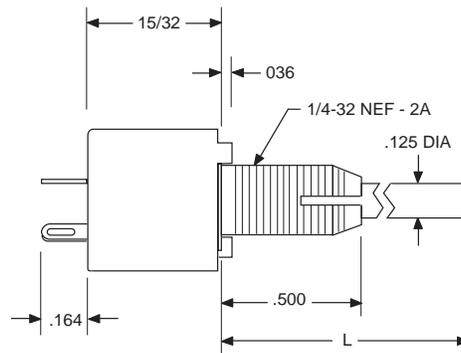
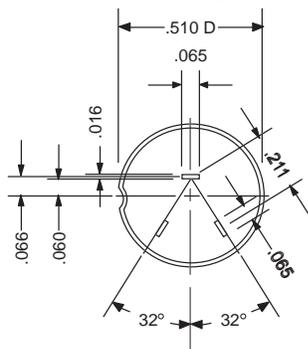
1/2 watt - 1/8" shaft diameter



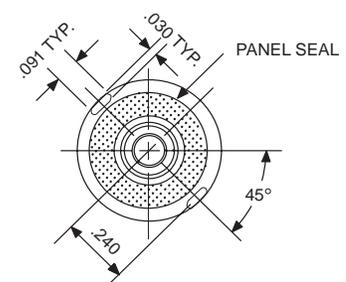
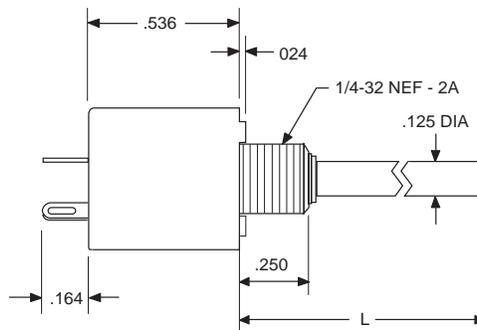
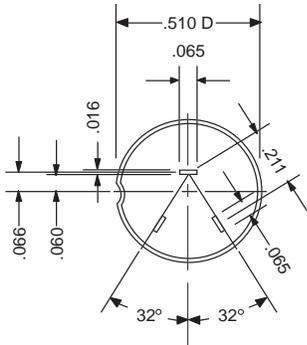
Standard Configuration



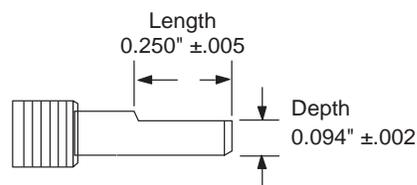
Locking Bushing



Panel Seal



Flatted Shaft



.Note:
Flatted Shaft is not available if
Locking Option is selected.

MIL Style RV6

1/2 watt - 1/8" shaft diameter

Ordering Information - Military Part Numbers

Carbon or Conductive Plastic element available

Style	Bushing	Switch	Temperature and Moisture Characteristics:	Shaft Style:	Shaft Length:	Resistance Value:	Taper and Tolerance:
RV6 = MIL style RV6	N = Standard L = Locking S = Panel & Shaft Seal	A = Without Switch	Y = as per MIL-R-94	S = Slotted F = Flatted	L = 3/8" B = 1/2" A = 5/8" D = 7/8"	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	A = Linear $\pm 10\%$ B = Linear $\pm 20\%$ C = Log $\pm 10\%$ D = Log $\pm 20\%$ E = Rev. Log $\pm 10\%$ F = Rev. Log $\pm 20\%$

Example Part Number: RV6LAYS B103A

Note: not all part number combinations are valid.

More options and combinations are available on commercial versions

Ordering Information - Commercial Part Numbers

Carbon element standard.

Conductive Plastic available in some configurations. Contact sales rep for information.

Series	Bushing	Bushing Length:	Taper	Resistance Value:	Tolerance:	Shaft Style:	Shaft Length:
S = Series S	blank = Std. L = Locking W = Panel & Shaft Seal	blank = 1/4" 6 = 3/8"	U = Linear A = Log B = Rev. Log	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	1 = 10% of Nominal 2 = 20% of Nominal	R = Round S = Slotted F = Flatted	16 = 1/2" 20 = 5/8" 24 = 3/4" 28 = 7/8" 32 = 1" 36 = 1 1/8"

Example Part Number: SLA1031S20

Note: not all part number combinations are valid.

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MIL Style RV8

1/2 watt - 1/8" shaft diameter



Series SPR/RV8 potentiometers are for PCB applications requiring a rugged potentiometer

Features

- hot molded carbon element
- board washable
- stainless steel shaft
- compact size
- meets or exceeds specifications of MIL-R-94 - QPL Listed

Options

- special tapers
- custom shafts and bushings
- location tab position
- customer specified marking

Electrical specifications

- Resistance Range-linear taper
100 ohms to 5 megohms
- Resistance Range-logarithmic taper
150 ohms to 1 megohm
- Resistance Tolerance
 $\pm 10\%$ or $\pm 20\%$
- Resistance Taper
linear, logarithmic, reverse logarithmic
(other tapers by special order)
- Power Rating
.5 watt @ 70 °C derated to
0 watts @ 120 °C
- Insulation Resistance
dry: 10K Megohms
wet: 100K Megohms

- Dielectric Strength
750 V RMS at sea level
- Operating Voltage
350 V subject to power rating

Mechanical Specifications

- Mechanical Rotation
295°
- Operating Torque
.5 oz/in to 6 oz/in
- Rotational Life
25,000 cycles

Environmental Specifications

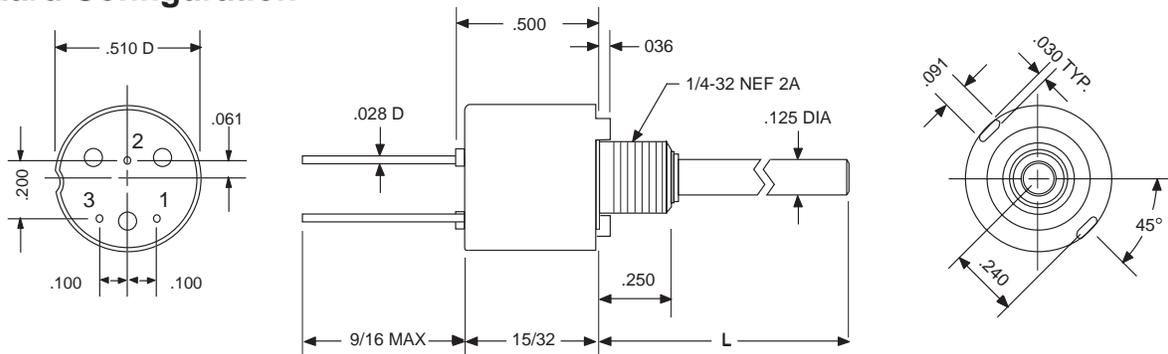
- Operating Temperature
-65 °C to +125 °C
- Resistance to Soldering Heat
350 °C to 5 seconds
- Humidity Range
per Mil-R-94
- Vibration Range
per Mil-R-94
- Shock Resistance
per Mil-R-94
- Load Life
1000 hr at 70 °C

MIL Style RV8

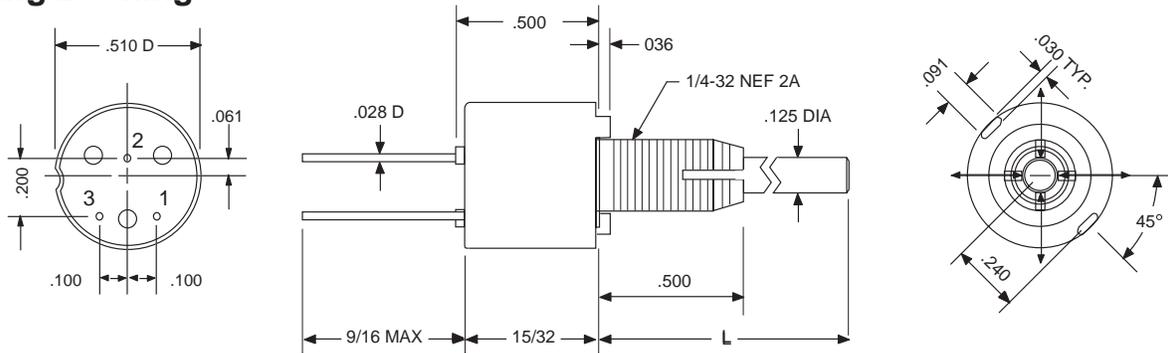
1/2 watt - 1/8" shaft diameter



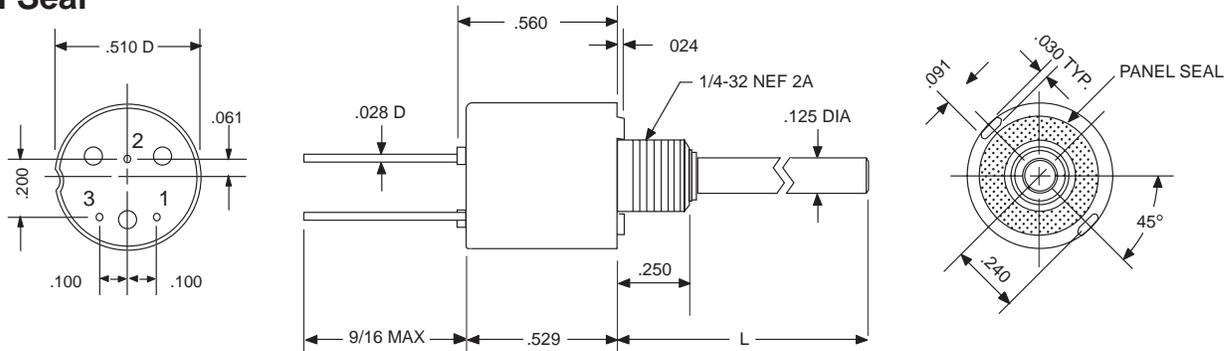
Standard Configuration



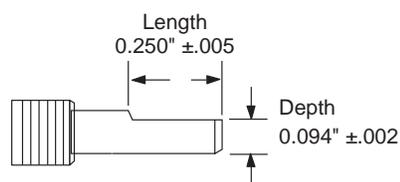
Locking Bushing



Panel Seal



Flatted Shaft



.Note:
Flatted Shaft is not available if
Locking Option is selected.

MIL Style RV8

1/2 watt - 1/8" shaft diameter

Ordering Information - Military Part Numbers

Carbon or Conductive Plastic element available

Style	Bushing	Switch	Temperature and Moisture Characteristics:	Shaft Style:	Shaft Length:	Resistance Value:	Taper and Tolerance:
RV8 = MIL style RV8	N = Standard L = Locking S = Panel & Shaft Seal	A = Without Switch	Y = as per MIL-R-94	S = Slotted F = Flatted	L = 3/8" B = 1/2" A = 5/8" D = 7/8"	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	A = Linear $\pm 10\%$ B = Linear $\pm 20\%$ C = Log $\pm 10\%$ D = Log $\pm 20\%$ E = Rev. Log $\pm 10\%$ F = Rev. Log $\pm 20\%$

Example Part Number: RV8NAYS103A

Note: not all part number combinations are valid.

More options and combinations are available on commercial versions

Ordering Information - Commercial Part Numbers

Carbon element standard.

Conductive Plastic available in some configurations. Contact sales rep for information.

Series	Bushing	Bushing Length:	Taper	Resistance Value:	Tolerance:	Shaft Style:	Shaft Length:
SPR = Series SPR	blank = Std. L = Locking W = Panel & Shaft Seal	blank = 1/4" 6 = 3/8"	U = Linear A = Log B = Rev. Log	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	1 = 10% of Nominal 2 = 20% of Nominal	R = Round S = Slotted F = Flatted	16 = 1/2" 20 = 5/8" 24 = 3/4" 28 = 7/8" 32 = 1"

Example Part Number: SPRU2521R20

Note: not all part number combinations are valid.

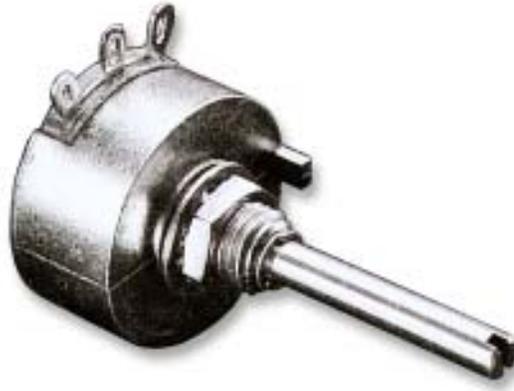
On-line Quotations are available at <http://www.potentiometers.com>



36 Route 10 East Hanover, NJ 07936
 (800) 631-8083 Local: (973) 887-2550
 e-Mail: sales@state-elec.com
<http://www.state-elec.com> <http://www.potentiometers.com>

MIL Style RV5

1/2 watt - 1/8" shaft diameter



Series T/RV5 potentiometers provide a low profile with lateral lug terminals.

Features

- hot molded carbon element
- one piece housing and bushing
- stainless steel shaft
- meets or exceeds specifications of MIL-R-94 - QPL Listed

Options

- special tapers
- custom shafts
- customer specified marking

Electrical specifications

- Resistance Range-linear taper
100 ohms to 5 megohms
- Resistance Range-logarithmic taper
150 ohms to 1 megohm
- Resistance Tolerance
 $\pm 10\%$ or $\pm 20\%$
- Resistance Taper
linear, logarithmic, reverse logarithmic
(other tapers by special order)
- Power Rating
.5 watts @ 70 °C derated to
0 watts @ 120 °C
- Insulation Resistance
dry: 10K Megohms
wet: 100K Megohms

Dielectric Strength

900 V RMS at sea level

Operating Voltage

350 V subject to power rating

Mechanical Specifications

Mechanical Rotation

300°

Operating Torque

1 oz/in to 6 oz/in

Rotational Life

25,000 cycles

Environmental Specifications

Operating Temperature

-65 °C to +125 °C

Resistance to Soldering Heat

350 °C to 5 seconds

Humidity Range

per Mil-R-94

Vibration Range

per Mil-R-94

Shock Resistance

per Mil-R-94

Load Life

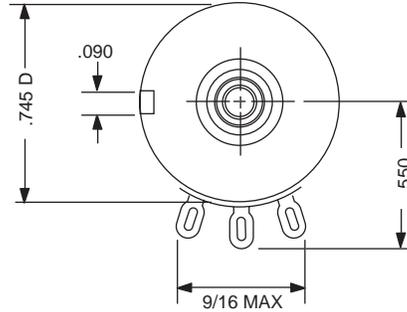
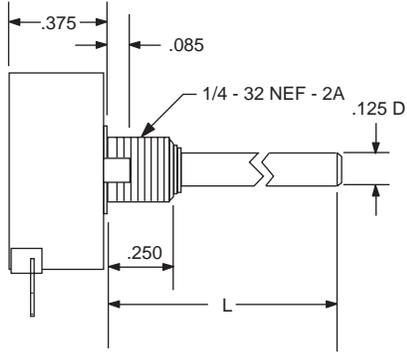
1000 hr at 70 °C

MIL Style RV5

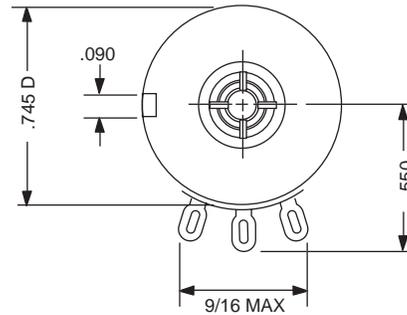
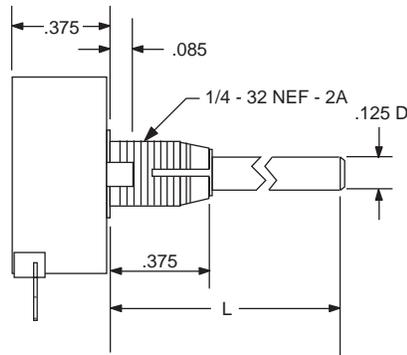
1/2 watt - 1/8" shaft diameter



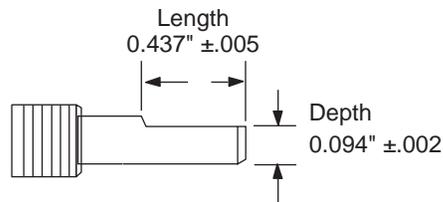
Standard Configuration



Locking Bushing



Flatted Shaft



.Note:
Flatted Shaft is not available if
Locking Option is selected.

MIL Style RV5

1/2 watt - 1/8" shaft diameter

Ordering Information - Military Part Numbers

Carbon or Conductive Plastic element available

Style	Bushing	Switch	Temperature and Moisture Characteristics:	Shaft Style:	Shaft Length:	Resistance Value:	Taper and Tolerance:
RV5 = MIL style RV5	N = Standard L = Locking	A = Without Switch	Y = as per MIL-R-94	S = Slotted	L = 3/8" B = 1/2" A = 5/8" D = 7/8"	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	A = Linear $\pm 10\%$ B = Linear $\pm 20\%$ C = Log $\pm 10\%$ D = Log $\pm 20\%$ E = Rev. Log $\pm 10\%$ F = Rev. Log $\pm 20\%$

Example Part Number: RV5NAYSB103A

Note: not all part number combinations are valid.
More options and combinations are available on commercial versions

Ordering Information - Commercial Part Numbers

Carbon element standard.

Conductive Plastic available in some configurations. Contact sales rep for information.

Series	Bushing	Bushing Length:	Taper	Resistance Value:	Tolerance:	Shaft Style:	Shaft Length:
T = Series T	blank = Std. L = Locking	blank = 1/4"	U = Linear A = Log B = Rev. Log	Total Resistance Value in Ohms: First 2 numbers are significant digits, 3rd number is the number of zeros.	1 = 10% of Nominal 2 = 20% of Nominal	R = Round S = Slotted F = Flatted	16 = 1/2" 20 = 5/8" 24 = 3/4" 28 = 7/8"

Example Part Number: TU5021S28

Note: not all part number combinations are valid.

On-line Quotations are available at <http://www.potentiometers.com>



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