Series RA30
Wirewound Mil-Spec Potentiometer - 4 Watt

Description

Series RA30
1 11/16 in. dia., 4 watt wirewound potentiometer. Meets MIL-R-19. Note that Mil-Spec does not include all of the possible combinations and options.

Features

- ***Nickel plated brass shaft and bushings***
- ***Shaft & mounting seals optional***
- ***Locking bushings optional***
- ***Flatted shaft optional***
- ***SPST rotary switch optional***

Also Available...

Series WW63C
Commercial equivalent wirewound potentiometer. Many optional features.

Series A63
Pick-A-Shaft version of the 63 series

Series 15
4 watt commercial equivalent wirewound control for applications requiring higher resistance

Series RA30 Electrical Specifications

Resistance Range
1 Ω to 25KΩ - Linear taper (standard)
10 Ω to 7.5KΩ - Log, Reverse Log (available)

Resistance Tolerance
±10% standard; ±1% available

Power Rating
Single section: 4 Watts @ 40°C; 0 @ 105°C
Additional sections: 3 Watts @40°C; 0 @ 105°C

Watts/Degree
.014 W per degree of effective rotation max.

Effective Rotation
280° ±5° stamdard
240° ±5° with switch

Electrical Rotation
300° ±5° with or without switch

Tapers
260Ω per degree maximum

Independent Linearity
±5% standard; ±1%

End Resistance
1 to 50Ω: 0.3Ω
51 to 100Ω: 0.5Ω
Over 100Ω : 0.2% of total or 1Ω, whichever is greater.

Dielectric Withstanding Voltage
1000 Vac for 60 seconds @ ATM.
450 Vac for 60 seconds @ 3.4 in. Hg.

Working Voltage (Max.)
350 Vdc maximum

Switches
S.P.S.T. rotary

Insulation Resistance
100 Megohms minimum

Operating Temperature Range
-55 °C to 105 °C

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Series RA30 Mechanical Specifications

Mechanical Rotation
300° +/- 5° with or without switch standard.
360° available (effective rotation 280° max.)

Stop Torque
8 lbs. in. maximum

Torque Range
0.5 to 6 oz in.each section;
15 oz. in. increase for switch actuation.
Locking type bushing: 25 oz. in. minimum with jam nut tightened to 10 lb. in.

Maximum Number of Sections
Three

Weight
Single .126 lb. without switch.
Additional section 0.075 lb.; 0.136 lb with switch.

Hardware
(a) Hex mounting nut, 3/8 in. (9.53mm) x 32 thread 1/2 in(12.7mm) across flats, 3/32 in (2.38mm) thick.
(b) Internal tooth lockwasher 11/16 in. (17.46mm) O.D. x 0.22 in (0.56mm) thick.
(c) Jam hex nut 1/2 in. (12.7mm) across flats, 7/32 in. (5.56mm) thick, supplied on locking type bushing.

Marking
Will appear on rear surface without switch. On periphery when switch is used. Unless otherwise specified, marking will consist of
(a) Customer part number or State Electronics part number
(b) EIA source and date code

Switch Option
SPST Rotary switch type B-10.
Rated 1A, 250V; 3A, 125V (AC or DC)
Torque: 12 oz. in.

Figure 1. Power Derating Graph

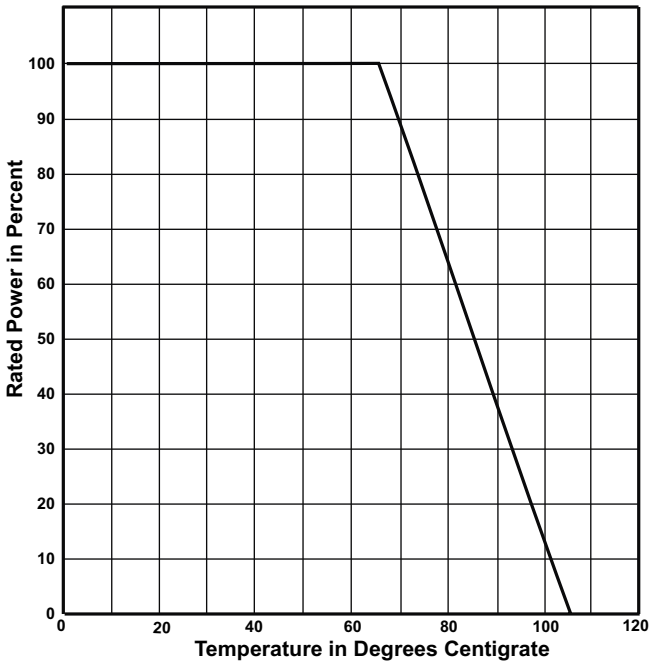


Figure 2. Resolution Graph

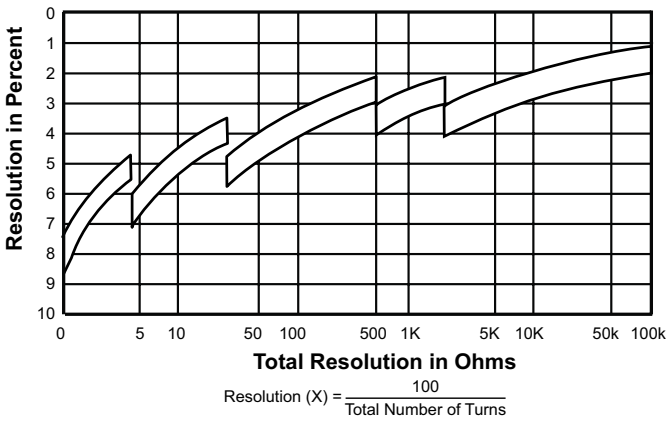
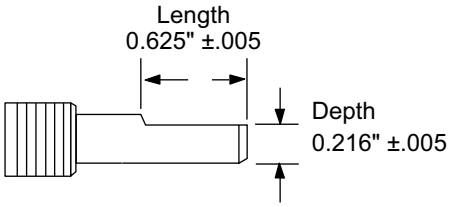


Figure 3. Flatted Shaft Option



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.

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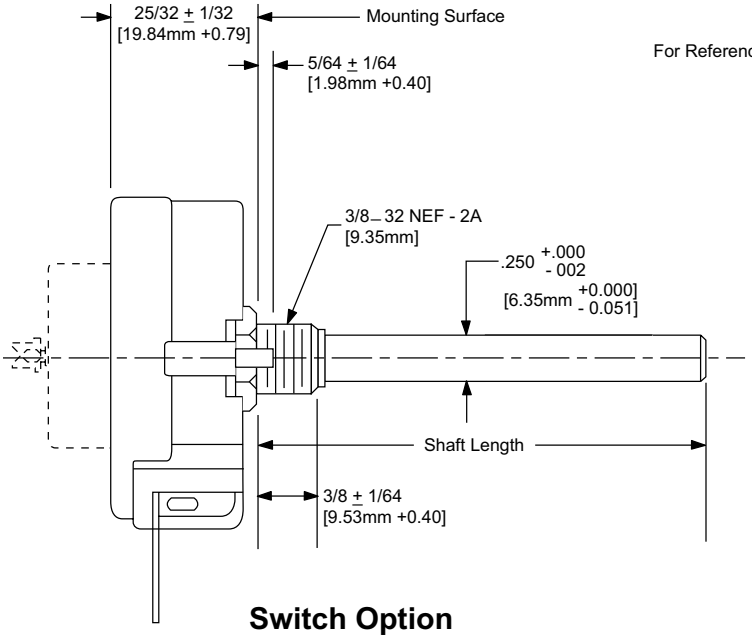
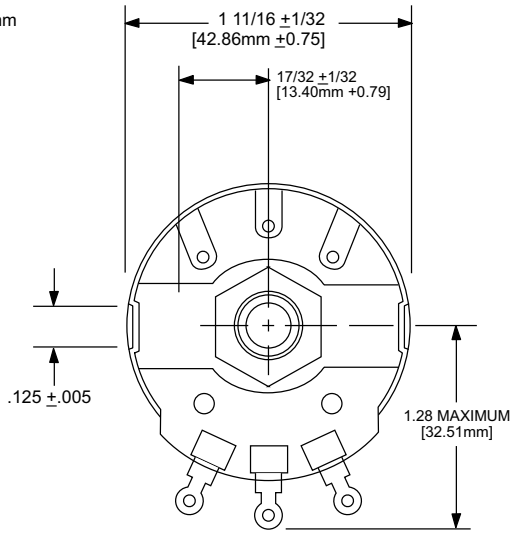
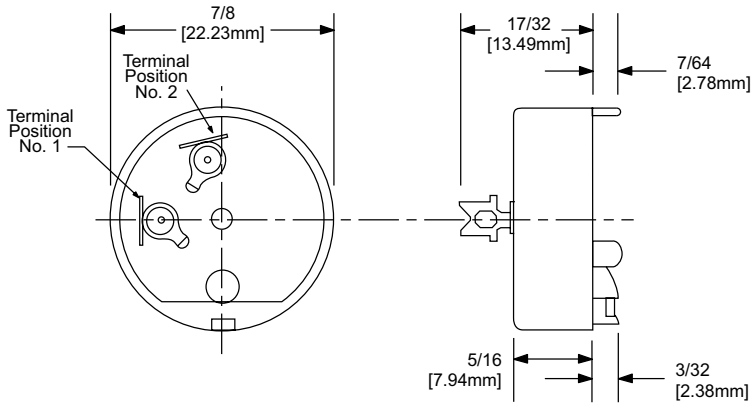


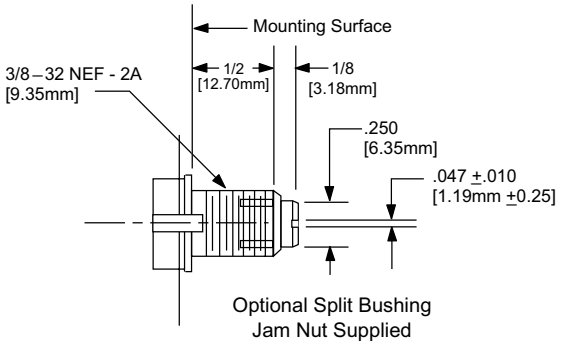
For Reference Only - in/mm



Switch Option



Locking Bushing Option



Series RA30 - How to Order

Part Number Example: **RA30-N-B10-SB-503A**

RA30	N	B10	S	B	XXX	A
Series	**Shaft & Bushing**	**Switch**	**Shaft Style**	**Shaft Length**	**Resistance**	**Linearity**
	N = Standard **L** = Locking **S** = Panel & Shaft Seal (Standard) **T** = Panel & Shaft Seal (Locking)	**A** = None **B** = SPST 1A, 250V	**S** = Slotted **F** = Flatted **X** = Custom	**A** = 1/2”* **B** = 5/8” **D** = 7/8” **G** = 1 1/4” **K** = 2 1/2”* *Not Available for Locking Bushing	**1-25KΩ**	**A** = Linear **C** = Log **E** = Rev. Log

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