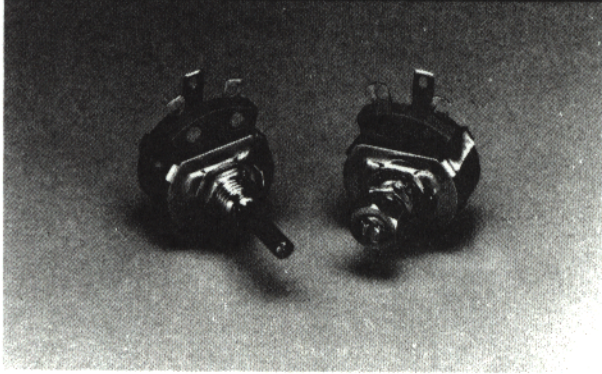


Series 49, 49M/RA10

1.5 Watt

Single-turn, Wirewound Potentiometer



Description

Series 49 - Miniaturized potentiometer with proven dependability of performance. Provides space savings in the electrical instrumentation industry. Available in single or dual units with a choice of standard or split-lock bushing mountings.

Series 49M/RA10 - The military versions of the Series 49 with same space savings dimensions. Made to meet MIL-R-19. 49M has $\pm 5\%$ resistance tolerance; RA10 has $\pm 10\%$.

Features

- *Stainless-steel shaft*
- *Shaft seals*
- *Mounting seals*
- *Ganging*
- *Concentric shafts*
- *PC terminals*
- *Various shaft and bushing configurations*

Series 49, 49M/RA10 Electrical Specifications

Resistance Range

15 Ω to 2.5K Ω linear for Series 49;

3 Ω to 2.5K Ω linear for Series 49M/RA10.

Resistance Tolerance

$\pm 5\%$ for 49 and 49M;

$\pm 10\%$ for RA10

Power Rating

1.5 watts @ 40°C, or .005 watt per degree of effective rotation maximum. Derate to zero power at 125°C.

See Figure 1, Page 87.

Effective Rotation

300° $\pm 5^\circ$, standard

Electrical Rotation

300° $\pm 5^\circ$, standard

End Resistance

1 to 15 Ω , 5% total resistance

Over 15 Ω , 3% total resistance

Working Voltage

175 Vdc maximum

Insulation Resistance

.100 Megohms minimum

Dielectric

1000 Vac for 60 seconds @ ATM

450 Vac for 60 seconds @ 3.44 in. Hg.

Working Voltage

175 Vdc maximum

Series 49, 49M/RA10 Mechanical Specifications

Mechanical Rotation

300° $\pm 5^\circ$

Operating Torque

0.3 to 6 oz. in.

Locking Bushing: 20 oz. in. minimum with jam nut tightened to 8 lb.in.

Stop Torque

3 lb. in. maximum

Series 49, 49M/RA10 Operational Specifications

Rotational Life

Per MIL-R-19 requirements

Operating Temperature Range

-55°C to 125°C

Figure 1
Series 49 Power Derating Graph

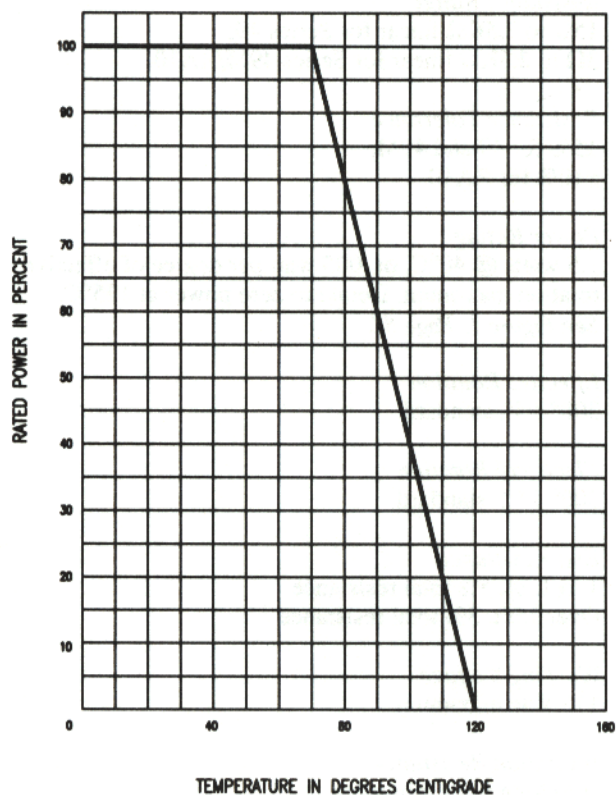
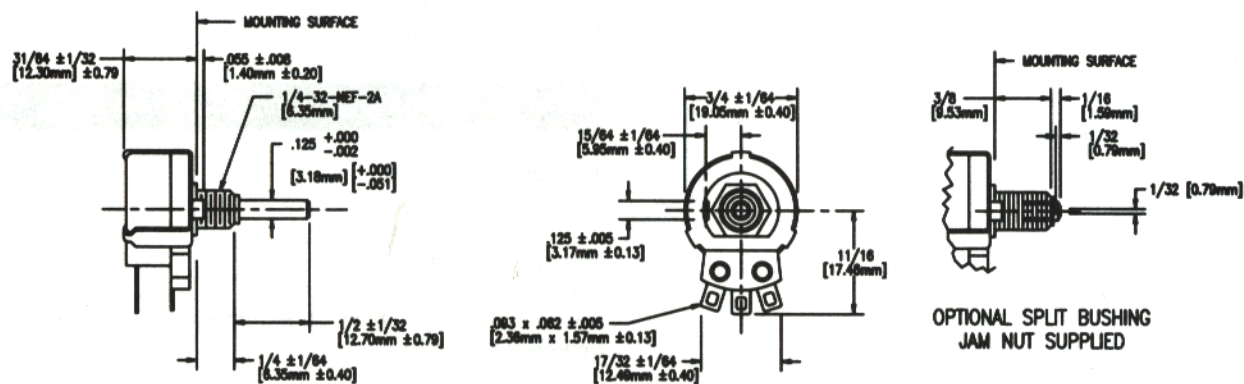


Figure 2
Series 49 Control Dimensions



Series 49 and 49M Standard Resistance Values

Series 49

Made to order only. Consult Factory.

Series 49M

Fabricated in accordance with MIL-R-19 where applicable.

Stock Values (Ohms)

5	50	250	1500	7500
10	100	500	2K	10K
50	150	750	2500	15K
25	200	1K	5K	20K

Series 49M How To Order

Catalog

Number Description

49M	1/8 in. (3.18mm) round shaft, 3/4 in. (19.05mm) FMS long with a 1/4 in. (6.35mm) x 32-NEF-2A mounting bushing 1/4 in. (6.35mm) long.
49M9	1/8 in. (3.18mm) diameter x 7/16 in. (11.11mm) FMS long screw- driver slotted shaft with a 1/4 in. (6.35mm) x 32- NEF-2A, 3/8 in. (9.54mm) long locking type bushing.

Order by specifying catalog number along with resistance values.

Example: **49M-2K**

49M

Series Catalog Number

2K

Resistance Value
(Ohms)

Series RA10 Standard Resistive Values

RA10's available on Special Order only.

Available Styles

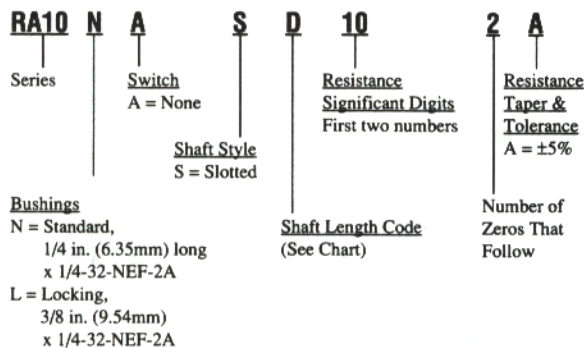
RA10NASD, RA10NASL, RA10LASD and RA10LASM

Available Values (Ohms, Tolerance and Taper)

150A	101A	351A	152A
250A	151A	501A	202A
500A	201A	751A	252A
750A	251A	102A	

Series RA10 How To Order

Example: **RA10-N-A-S-D-10-2-A**



Shaft Length from Mounting Surface (FMS) Table

Shaft Length Code	Bushing N	Bushing L
L	5/16 in. (7.94mm)	N/A
M	N/A	7/16 in. (11.11mm)
D	7/8 in. (22.23mm)	7/8 in. (22.23mm)

N/A - Not available.