

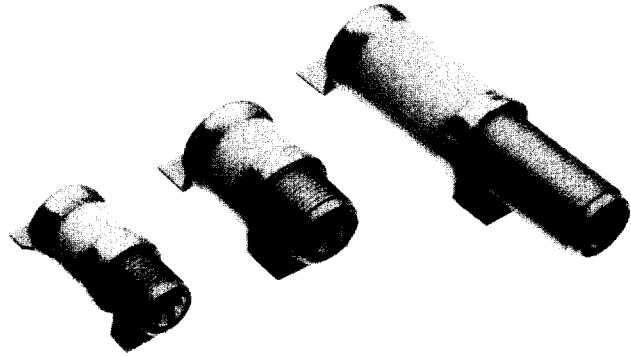
# High Voltage Teflon Dielectric Trimmer Capacitors

## AVAILABLE IN NON-MAGNETIC VERSIONS

### THE ONLY INTERNALLY-SEALED HIGH VOLTAGE TEFLON TRIMMERS

- 1,500 to 2,500 DC withstanding voltage
- 4, 10, 16, 23 and 40 pF maximum capacitance ranges

Voltronics concentric ring teflon dielectric trimmer capacitors are designed for use at frequencies up to 1.5 GHz. They are ideal for HIGH VOLTAGE applications. The solid internal teflon dielectric prevents ionization, a major advantage in space, high altitude and high voltage applications. The unique internal O-ring seal makes wave soldering and vapor degreasing possible without the need to attach a separate cap.



U.S. Patent No. 5,229,911

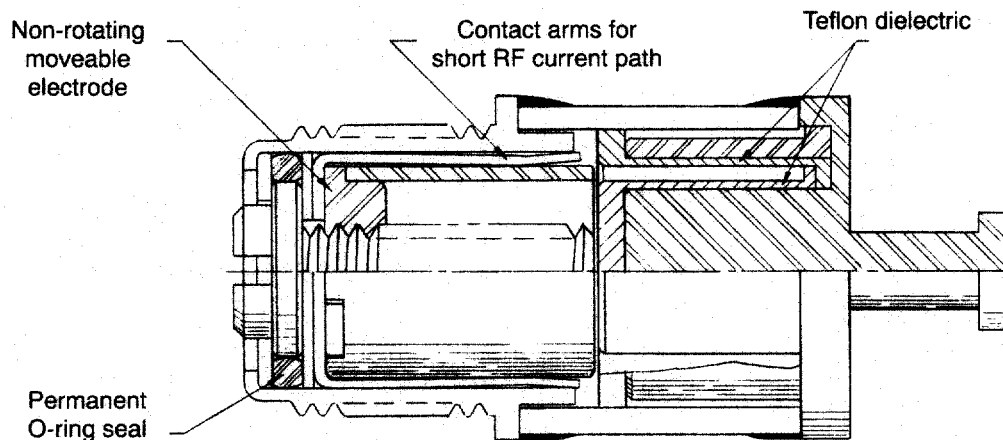
Other features include:

- Ten full linear turns
- Internal stops
- Extreme stability under shock & vibration
- Screw head does not move in and out
- Extended shaft option of metal or plastic
- Long life with no dynamic tuning noise

Available in two styles:

A\_\_HV and K\_\_HV Series – Solder sealed ceramic body

E\_\_HV and KE\_\_HV Series – Epoxy sealed plastic body



## TEFLON DIELECTRIC TRIMMER

# High Voltage Teflon Dielectric Trimmer Capacitors

## GENERAL SPECIFICATIONS

	A__HV SERIES	E__HV SERIES	K__HV SERIES	KE__HV SERIES
Q at 100 MHz at maximum rated C	2,000 (4 & 10pF) 1,500 (16 & 23pF) 1,000 (40pF)	2,000 (4 & 10pF) 1,500 (16 & 23pF)	3,000	3,000
Temperature Coefficient	0 ± 50 ppm/°C 0 ± 100 ppm/°C (40pF)	-50 ± 50 ppm/°C	0 ± 50 ppm/°C	-50 ± 50 ppm/°C
Insulation Resistance	10 <sup>6</sup> megohms	10 <sup>6</sup> megohms	10 <sup>6</sup> megohms	10 <sup>6</sup> megohms
Seal	40 pounds/in <sup>2</sup>	40 pounds/in <sup>2</sup>	40 pounds/in <sup>2</sup>	40 pounds/in <sup>2</sup>
Operating Temperature	-65°C to +125°C	-65°C to +125°C	-65°C to +125°C	-65°C to +125°C
Rotational Life	10,000 turns	10,000 turns	10,000 turns	10,000 turns
Torque	0.5-5.0 in-oz	0.5-5.0 in-oz	0.5-5.0 in-oz	0.5-5.0 in-oz
Vibration	50g, 10-2000 Hz	50g, 10-2000 Hz	50g, 10-2000 Hz	50g, 10-2000 Hz
Shock	1500 g, 0.5 millisecs.	1500 g, 0.5 millisecs.	1500 g, 0.5 millisecs.	1500 g, 0.5 millisecs.
Drawing tolerances where not specified	XXX ± .005 XX ± .016	XXX ± .005 XX ± .016	XXX ± .005 XX ± .016	XXX ± .005 XX ± .016

## Options

### The "SD" Option - for applications requiring high range but lower voltage:

All 23 & 40pF parts may be ordered as standard voltage parts, 250 DC working volts and 500 DC withstanding volts. These are listed next to each figure with a "SD" suffix instead of the "HV".

### Non-Magnetic Options:

All parts shown on pages 9, 10, and 11, can be ordered as non-magnetic. Add "NM" to part number, i.e., NMAT25HV, NMKP10HV, NMAJ40HV.

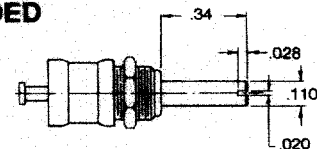
### Extended Shaft Options

Extended Metal Shaft: Add "E" to Part Number, i.e., AT10HVE.

Extended Plastic Shaft: Add "EI" to Part Number, i.e., EF10HVEI (Same as metal shaft except .44" by .16").

### A\_\_HV AND E\_\_HV OPTIONS

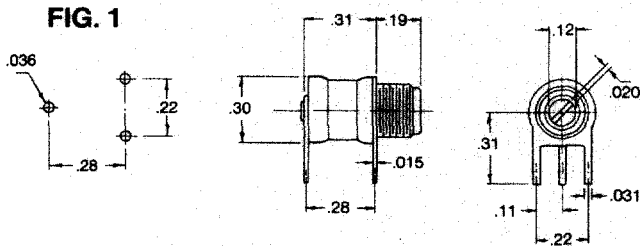
EXTENDED METAL SHAFT



<b>N</b>	0.015	0.020	0.028	0.03	0.031	0.036	0.040	0.047	0.05	0.06	0.062	0.067	0.09	0.11	0.12	0.125	0.13	0.14	0.16	0.17	0.19	0.20	0.22	0.242	0.25	0.28	0.29
<b>MM</b>	0.38	0.51	0.71	0.76	0.79	0.91	1.02	1.19	1.27	1.52	1.57	1.70	2.29	2.79	3.05	3.18	3.30	3.56	4.06	4.32	4.83	5.08	5.59	6.15	6.35	7.11	7.37
<b>IN</b>	0.30	0.31	0.34	0.48																							
<b>MM</b>	7.62	7.87	8.64	12.19																							

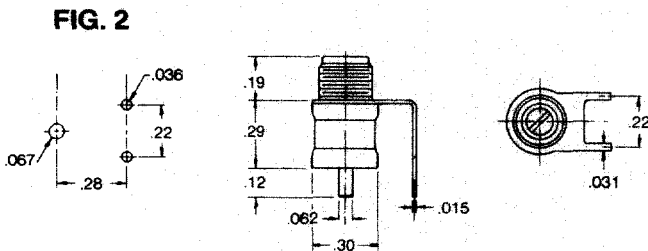
# A\_HV & E\_HV SERIES Teflon Dielectric Trimmer Capacitors

Part Number		DC Working Voltage	DC Withstanding Voltage	Capacitance (pF)	
"A" Series	"E" Series			From Below	To Above



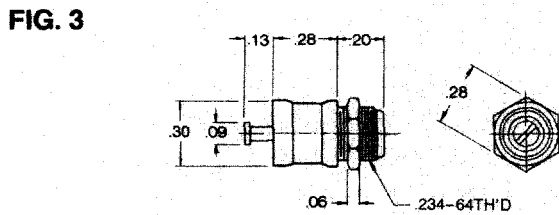
**FIG. 1**

AP4HV	EP4HV	1250	2500	1.0	4.0
AP10HV	EP10HV	1250	2500	1.0	10.0
AP15HV	EP15HV	1000	2000	1.0	16.0
AP25HV	EP25HV	750	1500	1.0	23.0
AP25SD	EP25SD	250	500	1.0	23.0



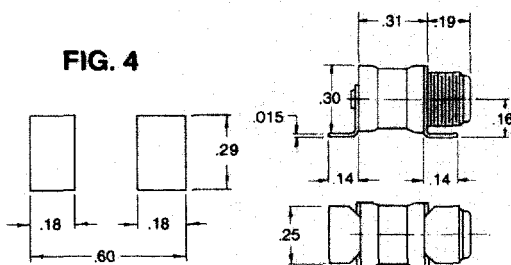
**FIG. 2**

AF4HV	EF4HV	1250	2500	1.0	4.0
AF10HV	EF10HV	1250	2500	1.0	10.0
AF15HV	EF15HV	1000	2000	1.0	16.0
AF25HV	EF25HV	750	1500	1.0	23.0
AF25SD	EF25SD	250	500	1.0	23.0



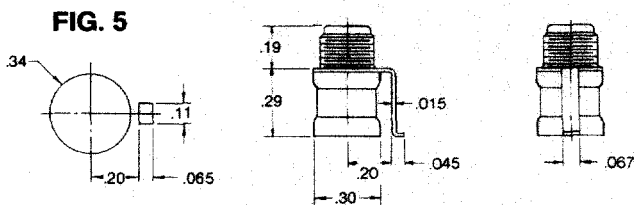
**FIG. 3**

AT4HV	ET4HV	1250	2500	1.0	4.0
AT10HV	ET10HV	1250	2500	1.0	10.0
AT15HV	ET15HV	1000	2000	1.0	16.0
AT25HV	ET25HV	750	1500	1.0	23.0
AT25SD	ET25SD	250	500	1.0	23.0



**FIG. 4**

AJ4HV	EJ4HV	1250	2500	1.0	4.0
AJ10HV	EJ10HV	1250	2500	1.0	10.0
AJ15HV	EJ15HV	1000	2000	1.0	16.0
AJ25HV	EJ25HV	750	1500	1.0	23.0
AJ25SD	EJ25SD	250	500	1.0	23.0



**FIG. 5**

AM4HV	EM4HV	1250	2500	1.0	4.0
AM10HV	EM10HV	1250	2500	1.0	10.0
AM15HV	EM15HV	1000	2000	1.0	16.0
AM25HV	EM25HV	750	1500	1.0	23.0
AM25SD	EM25SD	250	500	1.0	23.0

NOTE: All bushing threads are .234"-64

Recommended Tuning Tool: TT-100 or TT500

# K\_HV & KE\_HV SERIES Teflon Dielectric Trimmer Capacitors

FIG. 1

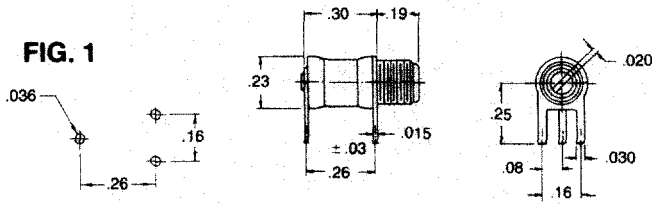


FIG. 1

Part Number		DC Working Voltage	DC Withstanding Voltage	Capacitance (pF)	
"K" Series	"KE" Series			From Below	To Above
KP10HV	KEP10HV	1000	2000	1.0	9.0

FIG. 2

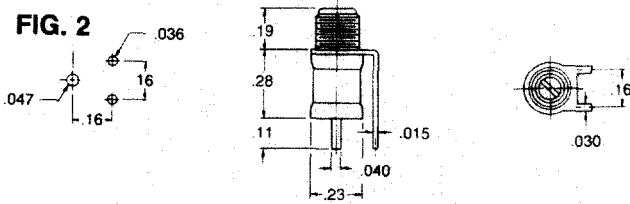


FIG. 2

KF10HV	KEF10HV	1000	2000	1.0	9.0
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FIG. 3

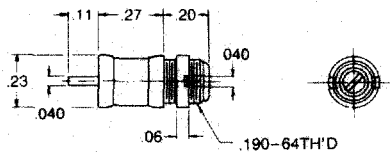


FIG. 3

KT10HV	KET10HV	1000	2000	1.0	9.0
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FIG. 4

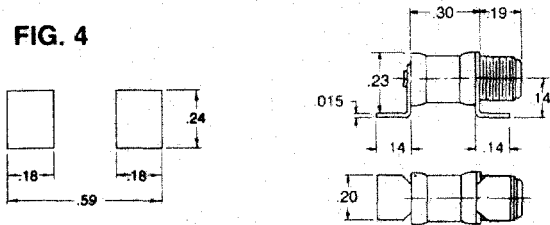


FIG. 4

KJ10HV	KEJ10HV	1000	2000	1.0	9.0
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FIG. 5

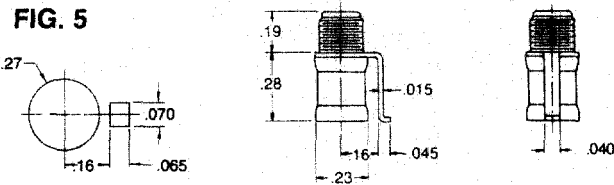


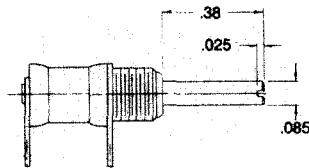
FIG. 5

KM10HV	KEM10HV	1000	2000	1.0	9.0
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NOTE: All bushing threads are .190"-64

Recommended Tuning Tool: TT-100 or TT500

## EXTENDED METAL SHAFT



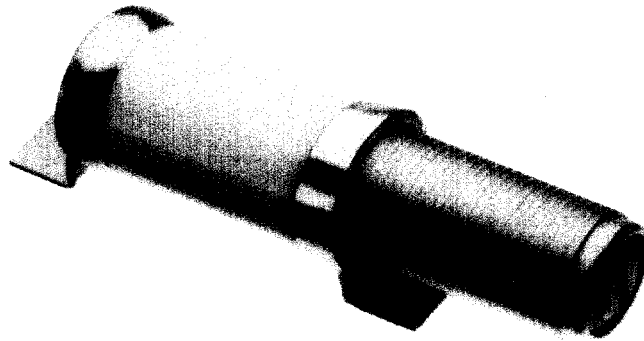
## EXTENDED SHAFT OPTION

Extended Metal Shaft: Add "E" to Part Number, i.e., KP10HVE.

<b>IN</b>	0.015	0.025	0.030	0.036	0.040	0.045	0.060	0.067	0.080	0.085	0.093	0.110	0.140	0.150	0.160	0.190	0.200	0.230	0.250	0.264	0.270	0.280
<b>MM</b>	0.38	0.63	0.76	0.91	1.02	1.14	1.52	1.70	2.03	2.16	2.36	2.79	3.56	3.81	4.06	4.83	5.08	5.84	6.35	6.71	6.86	7.11
<b>IN</b>	0.290	0.300	0.380	0.470																		
<b>MM</b>	7.37	7.62	9.65	11.94																		

# A\_40HV & A\_40SD Series - 40pF Teflon Dielectric Trimmer Capacitors

U.S. Patent Number 5,229,911



Part Number	DC Working Voltage	DC Withstanding Voltage	Capacitance (pF)	
			From Below	To Above

FIG. 1

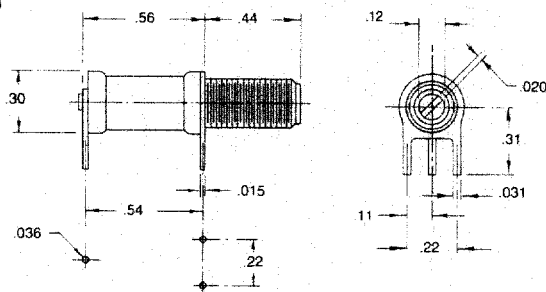


FIG. 1

AP40HV	1000	2000	1.5	40.0
AP40SD	250	500	1.5	40.0

FIG. 2

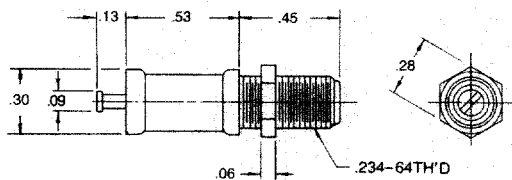


FIG. 2

AT40HV	1000	2000	1.5	40.0
AT40SD	250	500	1.5	40.0

FIG. 3

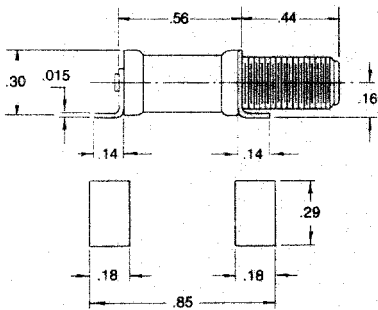
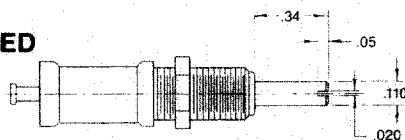


FIG. 3

AJ40HV	1000	2000	1.5	40.0
AJ40SD	250	500	1.5	40.0

## EXTENDED METAL SHAFT



Recommended Tuning Tool: TT-100 or TT-600

NOTE: All bushing threads are .234"-64

## EXTENDED SHAFT OPTION

Extended Metal Shaft: Add "E" to Part Number, i.e., AT40SDE

<b>IN</b>	0.015	0.020	0.031	0.036	0.050	0.060	0.090	0.110	0.120	0.130	0.140	0.160	0.180	0.220	0.250	0.280	0.290	0.300	0.310	0.340	0.440	0.450	0.530	0.540	0.560	0.850
<b>MM</b>	0.38	0.51	0.79	0.91	1.27	1.52	2.29	2.79	3.05	3.30	3.56	4.06	4.57	5.59	6.35	7.11	7.37	7.62	7.87	8.64	11.18	11.43	13.46	13.72	14.22	21.59