

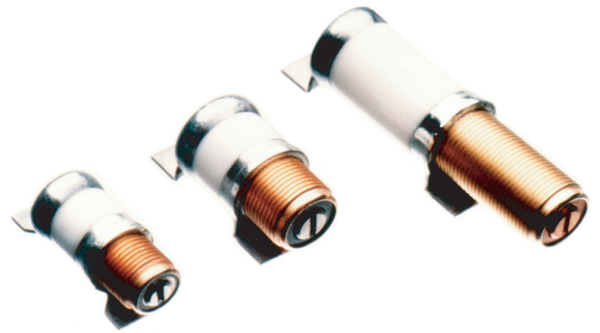
High Voltage, High Range SERIES - PTFE Dielectric Trimmer Capacitors

AVAILABLE IN NON-MAGNETIC VERSIONS

THE ONLY INTERNALLY-SEALED HIGH VOLTAGE PTFE TRIMMERS

- 1,200 to 2,000 DC withstanding voltage
- 1, 4, 9, 10, 16, 23, 30, 40 and 55 pF maximum capacitance ranges

Voltronics concentric ring PTFE dielectric trimmer capacitors are designed for use at frequencies up to 1.5 GHz. They are ideal for HIGH VOLTAGE applications. The solid internal PTFE 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.



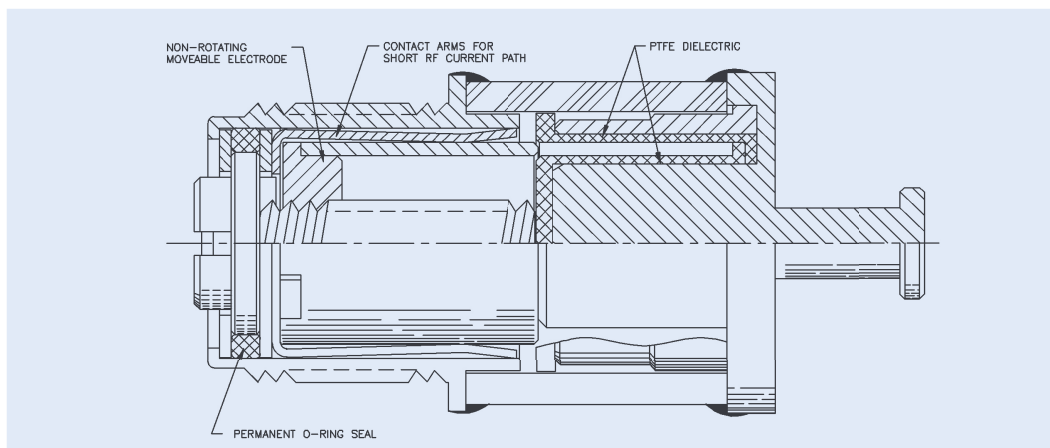
Other features include:

- 10 or 29 linear turns
- Internal stops
- Extreme stability under shock & vibration
- Screw head does not move in or 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



PTFE DIELECTRIC TRIMMER

High Voltage, High Range SERIES - PTFE Dielectric Trimmer Capacitors

GENERAL SPECIFICATIONS

	A_HV SERIES	E_HV SERIES	K_HV SERIES	KE_HV SERIES
Q at 1 GHz at maximum rated C*			780 (1pF)	
Q at 100 MHz at maximum rated C*	2000 (4, 10, 16, 23, 30 & 40pF)	2000 (4, 10, 16, & 23pF)	2000 (4, 9, 15pF)	2000 (4, 9, 15pF)
Q at 75 MHz at maximum rated C*	780 (55pF)			
Temperature Coefficient	50 ± 50ppm/°C 0 ± 100ppm/°C (40pF & 55pF)	50 ± 50ppm/°C	50 ± 50ppm/°C	50 ± 50ppm/°C
Insulation Resistance	10 ⁶ megohms	10 ⁶ megohms	10 ⁶ megohms	10 ⁶ megohms
Seal	40 pounds/in ²	40 pounds/in ²	40 pounds/in ²	40 pounds/in ²
Operating Temperature	-65°C to +125°C	-65°C to +125°C	-65°C to +125°C	-65°C to +125°C
Rotational Life	600 turns	600 turns	600 turns	600 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	1500g, 0.5 millisecs.	1500g, 0.5 millisecs.	1500g, 0.5 millisecs.	1500g, 0.5 millisecs.
Drawing Tolerances where not specified	XXX ± .005 XX ± .016	XXX ± .005 XX ± .016	XXX ± .005 XX ± .016	XXX ± .005 XX ± .016

*Self-resonant frequency and Q are measured with no terminals on parts

Options

The “SD” Option - for applications requiring high reliability but lower voltage:

Part Number	Working Voltage	Withstanding Voltage
K_1SD	250	500
A or K_4SD	250	500
A_25SD	125	250
A_30*	250	500
A_40SD	250	500
A_55SD	125	250

NOTE: A_30 not available in high voltage configuration.

Extended Shaft Options

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

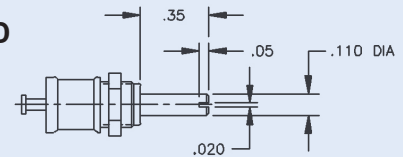
Extended Plastic Shaft: Add “EI” to Part Number, i.e., EF10HVEI (Same as metal shaft except .44” by .16”)

Non-Magnetic Options:

All HV parts can be ordered as non-magnetic. Add “NM” to part number, i.e., NMAT25HV, NMKP10HV, NMAJ40HV.

A_HV AND E_HV OPTIONS

EXTENDED METAL SHAFT



IN	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		
MM	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		
IN	0.30	0.31	0.34	0.48																									
MM	7.62	7.87	8.64	12.19																									

“A_HV” & “E_HV” SERIES - PTFE Dielectric Trimmer Capacitors

FIG. 1

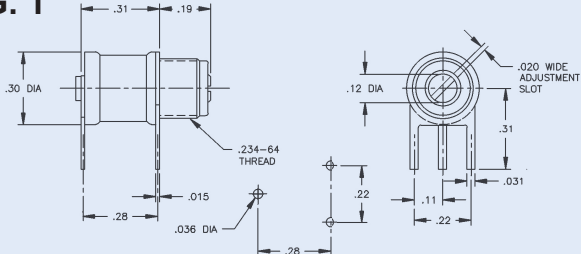


FIG. 1

Part Number		DC Working Voltage	DC Withstanding Voltage	Capacitance (pF)	
“A” Series	“E” Series			From Below	To Above
AP4HV	EP4HV	1000	2000	1.0	4.0
AP10HV	EP10HV	1000	2000	1.0	10.0
AP15HV	EP15HV	1000	2000	1.0	16.0
AP25HV	EP25HV	750	1500	1.0	23.0
AP25SD	EP25SD	125	250	1.0	23.0
AP30		250	500	1.5	30.0

FIG. 2

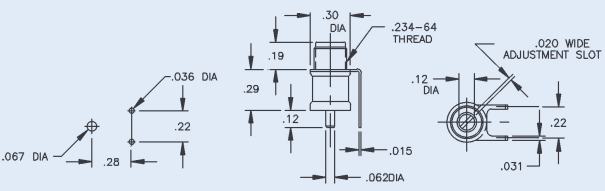


FIG. 2

AF4HV	EF4HV	1000	2000	1.0	4.0
AF10HV	EF10HV	1000	2000	1.0	10.0
AF15HV	EF15HV	1000	2000	1.0	16.0
AF25HV	EF25HV	750	1500	1.0	23.0
AF25SD	EF25SD	125	250	1.0	23.0
AF30		250	500	1.5	30.0

FIG. 3

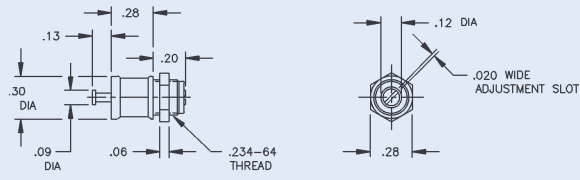


FIG. 3

AT4HV	ET4HV	1000	2000	1.0	4.0
AT10HV	ET10HV	1000	2000	1.0	10.0
AT15HV	ET15HV	1000	2000	1.0	16.0
AT25HV	ET25HV	750	1500	1.0	23.0
AT25SD	ET25SD	125	250	1.0	23.0
AT30		250	500	1.5	30.0

FIG. 4

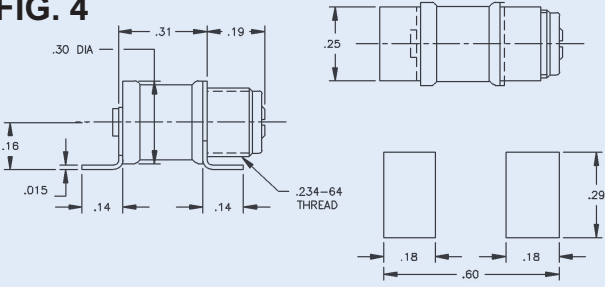


FIG. 4

AJ4HV	EJ4HV	1000	2000	1.0	4.0
AJ10HV	EJ10HV	1000	2000	1.0	10.0
AJ15HV	EJ15HV	1000	2000	1.0	16.0
AJ25HV	EJ25HV	750	1500	1.0	23.0
AJ25SD	EJ25SD	125	250	1.0	23.0
AJ30		250	500	1.5	30.0

FIG. 5

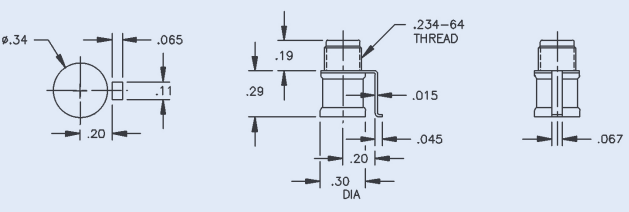


FIG. 5

AM4HV	EM4HV	1000	2000	1.0	4.0
AM10HV	EM10HV	1000	2000	1.0	10.0
AM15HV	EM15HV	1000	2000	1.0	16.0
AM25HV	EM25HV	750	1500	1.0	23.0
AM25SD	EM25SD	125	250	1.0	23.0
AM30		250	500	1.5	30.0

Recommended Tuning Tool: TT-100 or TT-500

"K_HV" & "KE_HV" SERIES - PTFE Dielectric Trimmer Capacitors

FIG. 1

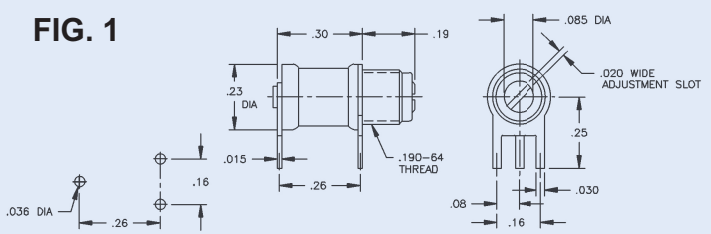


FIG. 1

Part Number		DC Working Voltage	DC Withstanding Voltage	Capacitance (pF)	
"K" Series	"KE" Series			From Below	To Above
KP1HV		1000	2000	0.2	1
KP1SD		250	500	0.2	1
KP4HV	KEP4HV	1000	2000	0.5	4
KP4SD	KEP4SD	250	500	0.5	4
KP10HV	KEP10HV	1000	2000	1.0	6
KP15HV		750	1500	1.0	15

FIG. 2

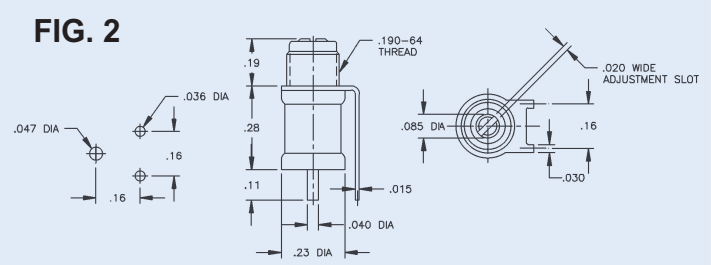


FIG. 2

KF4HV	KEF4HV	1000	2000	0.5	4
KF4SD	KEF4SD	250	500	0.5	4
KF10HV	KEF10HV	1000	2000	1.0	9
KF15HV		750	1500	1.0	15

FIG. 3

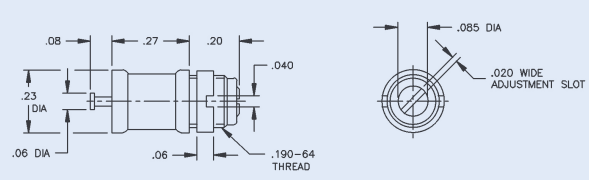


FIG. 3

KT1HV		1000	2000	0.2	1
KT1SD		250	500	0.2	1
KT4HV	KET4HV	1000	2000	0.5	4
KT4SD	KET4SD	250	500	0.5	4
KT10HV	KET10HV	1000	2000	1.0	9
KT15HV		750	1500	1.0	15

FIG. 4

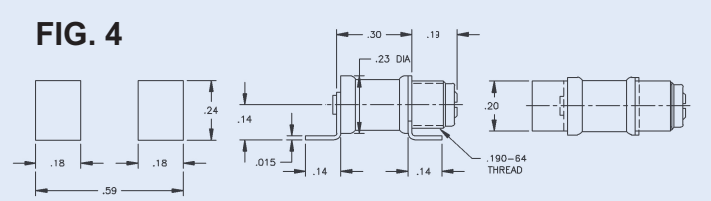


FIG. 4

KJ1HV		1000	2000	0.2	1
KJ1SD		250	500	0.2	1
KJ4HV	KEJ4HV	1000	2000	0.5	4
KJ4SD	KEJ4SD	250	500	0.5	4
KJ10HV	KEJ10HV	1000	2000	1.0	9
KJ15HV		750	1500	1.0	15

FIG. 5

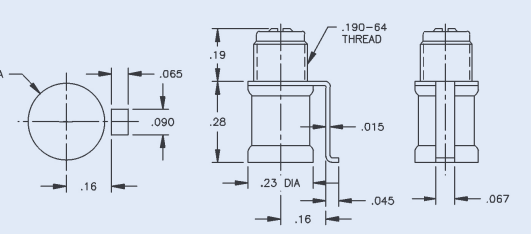
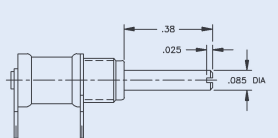


FIG. 5

KM4HV	KEM4HV	1000	2000	0.5	4
KM4SD	KEM4SD	250	500	0.5	4
KM10HV	KEM10HV	1000	2000	1.0	9
KM15HV		750	1500	1.0	15

NOTE: All brushing threads are .190"-64
Recommended Tuning Tool: TT-100 or TT-500

EXTENDED METAL SHAFT



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

IN	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
MM	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
IN	0.290	0.300	0.380	0.470																		
MM	7.37	7.62	9.65	11.94																		

"A_HV" EXTENDED RANGE SERIES - PTFE Dielectric Trimmer Capacitors

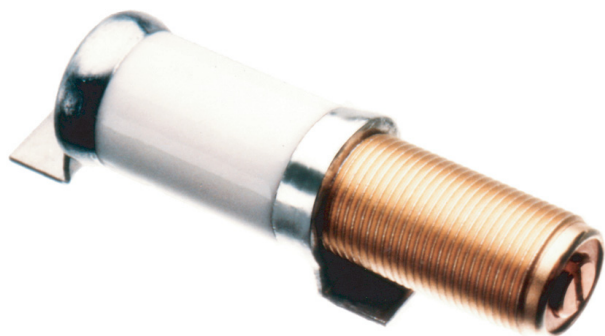


FIG. 1

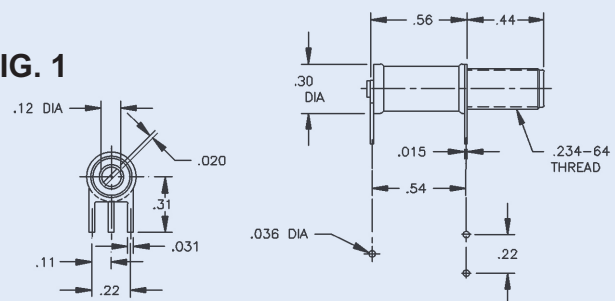


FIG. 2

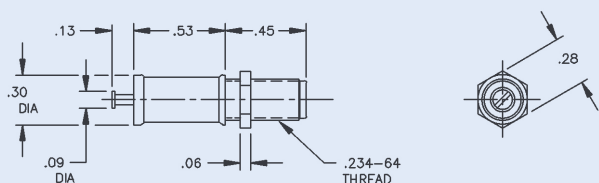
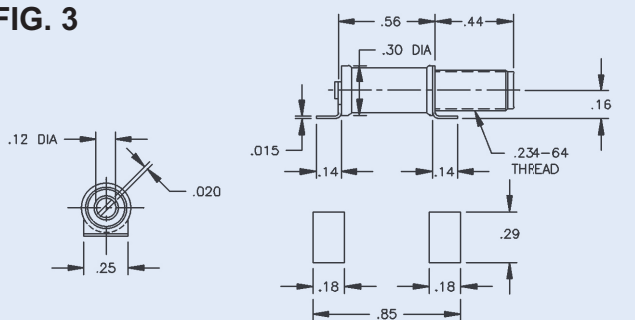
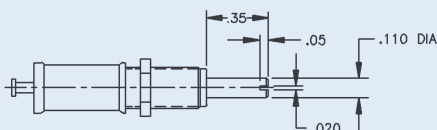


FIG. 3



EXTENDED METAL SHAFT



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

FIG. 1

* AP10-5	2500	5000	0.8	10.0
* AP20-5	2500	5000	0.8	20.0
AP40HV	1000	2000	1.5	40.0
AP40SD	250	500	1.5	40.0
AP55HV	600	1200	1.5	55.0
AP55SD	125	250	1.5	55.0

FIG. 2

* AT10-5	2500	5000	0.8	10.0
* AT20-5	2500	5000	0.8	20.0
AT40HV	1000	2000	1.5	40.0
AT40SD	250	500	1.5	40.0
AT55HV	600	1200	1.5	55.0
AT55SD	125	250	1.5	55.0

FIG. 3

* AJ10-5	2500	5000	0.8	10.0
* AJ20-5	2500	5000	0.8	20.0
AJ40HV	1000	2000	1.5	40.0
AJ40SD	250	500	1.5	40.0
AJ55HV	600	1200	1.5	55.0
AJ55SD	125	250	1.5	55.0

Recommended Tuning Tool: TT-100 or TT-500

NOTE: All brushing threads are .234"-64

EXTENDED SHAFT OPTION

Extended Metal Shaft: Add "E" to Part Number, i.e., AT40SDE, AT10-5E

* Q at 100 MHz at maximum rated C: 3000
Temperature Coefficient: 0-100 ppm/°C

IN	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
MM	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