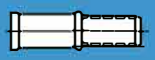
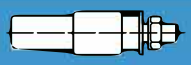
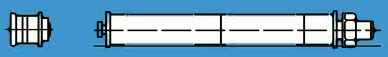
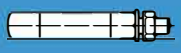
Air and PTFE Trimmers Product Guide

Product Selection Guide - Consult Factory for Complete Catalog

	Product Series	Description	Options	Maximum Capacitance	DC Working Voltage	DC Dielectric Withstand Voltage	Typical Q Value	Page
A1_4/8  A1_12 	A1 Line	Miniature PTFE Dielectric	Non-Mag, Standard	11pF	Up to 250V	Up to 500V	2000-4000	
	A1 Line HV	High Voltage Miniature PTFE Dielectric	Non-Mag, Standard	11pF	Up to 1000V	Up to 2000V	2000-4000	
A4_3  A4_5 	A4 Line	Sub Miniature PTFE Dielectric	Non-Mag, Standard	5pF	125V	250V	2000-3000	
	A Line	Air Dielectric	Non-Mag, Standard	14pF	Up to 250V	Up to 500V	3000-5000	
A_HV 	A Line HV	PTFE Dielectric	Non-Mag, Standard	55pF	Up to 1,000V	Up to 2,000V	2000	
A_HV EXT Range 	A Line HV Extended Voltage	High Voltage PTFE Dielectric	Non-Mag, Standard	20pF	2,000V	4,000V	780-2000	
K_HV 	K Line	Reduced Size Air Dielectric	Non-Mag, Standard	10pF	250V	500V	5000	
	K Line HV	PTFE Dielectric HV Reduced Size	Non-Mag, Standard	15pF	up to 1,000V	Up to 2,000V	780-2000	
NT 	NMNT Line	Very High Voltage PTFE Dielectric	Non-Mag	95pF	Up to 10,000V	Up to 20,000V	2000	
GLASS 	Glass	Glass Dielectric High Capacitance	Non-Mag, Standard, MIL-PRF-14409	250pF	Up to 1,250V	Up to 2,500V	250-1000	
QUARTZ 	Quartz	Quartz Dielectric	Non-Mag, Standard, MIL-PRF-14409	24pF	Up to 1,250V	Up to 2,500V	2000	

Note: Most of the above trimmer capacitors can be ordered as non-magnetic - see non-magnetic section.

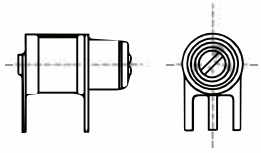
Air Trimmers Product Guide

Part Number	Capacitance Range (pF)	Number of Turns	Working Voltage (VDC)	Withstanding Voltage (VDC)	Tuning Torque (oz.in)	Q @ 100 HHz
5200	0.8 to 10pF	>6	250	500	1 - 5	>5000
5201						
5202						
5302	1 to 10pF	>10	500	1000	1 - 6	>2000
5400	1 to 14pF	>6	250	500	1 - 5	>3000
5401						
5402						
5451	1 to 16pF	>6	250		1 - 5	>3000
5453	1.5 to 16pF					
5500	1 to 20pF	>12	250		1 - 5	>1500
5501						
5502						
5600	1 to 30pF	>20	250		1 - 5	>800
5601						
5602						
5700	0.6 to 6pF	>7	250		0.4 - 4	>10000
5701						
5702						
5750	0.8 to 10pF	>8	250		0.4 - 4	>7500
5751						
5752						
5753	1 to 10pF					
5800	0.35 to 3.5pF	>9	250		0.3 - 3	>10000
5801						
5802						
5850	0.5 to 5pF	>12	250		0.3 - 3	>7500
5851						
5852						
5853	0.6 to 5pF					
8050	0.7 to 6pF	>7	250		0.4 - 4	>10000
8051	0.6 to 3.5pF	>10			0.3 - 3	
8052	1 to 10pF	>6			1 - 5	>5000
8053	1.5 to 14pF	>6				>3000
8054	1.5 to 20pF	>12				>1500
8090	1 to 10pF	>6	250		1 - 5	>2000
8091	1.5 to 14pF					
8092						
8093						

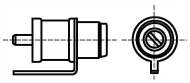
Air and PTFE Trimmers

LEAD STYLES

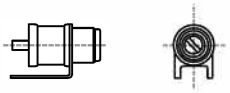
P LEAD STYLE



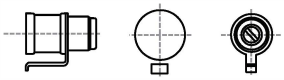
B LEAD STYLE



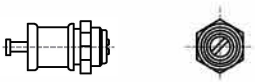
F LEAD STYLE



M LEAD STYLE



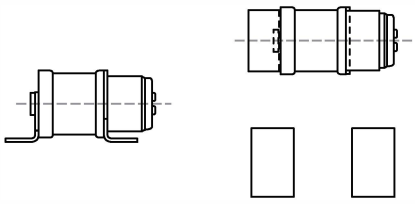
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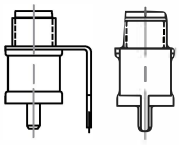
C LEAD STYLE



J LEAD STYLE

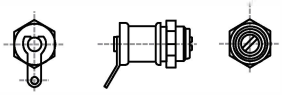


D LEAD STYLE

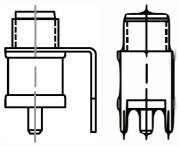


T LEAD STYLE WITH L OPTION

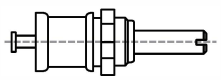
Note: All bushing threads are .234" -64



E LEAD STYLE

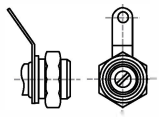


EXTENDED METAL SHAFT



INSULATED BUSHING

Insert "I" in Part Number, e.g., AIT10L



Air Trimmers A Series



THE ONLY INTERNALLY SEALED AIR TRIMMER

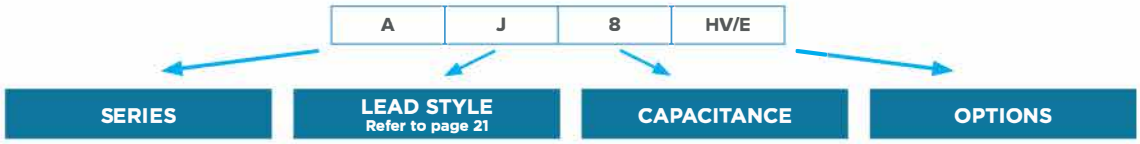
Voltronics' concentric ring Air Trimmer capacitors are designed for use at frequencies up to 1.5 GHz.

They are ideal for applications such as mobile radios, aerospace communication, crystal oscillators and filters, radar, cable TV and innumerable other commercial and military programs. The unique internal O-ring seal makes wave soldering and vapor degreasing possible without the need to attach a separate cap.

"A" Series - Solder sealed and available to MIL-PRF-14409.

OTHER FEATURES INCLUDE:

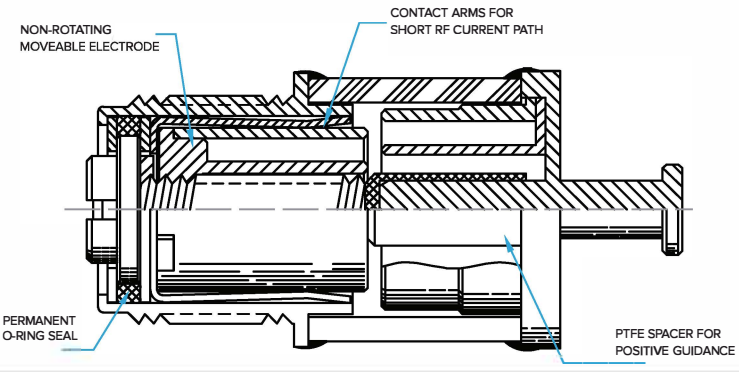
- Ten full linear turns
- Internal stops
- Extreme stability under shock and vibration
- Screw head does not move in and out
- Extended shaft option of metal or plastic
- Long life with no dynamic tuning noise



Note: All parts shown here can be ordered as non-magnetic:
Add "NM" to Part Number, e.g., NMAP10

General Specifications	A_5	A_10	A_14
Capacitance Range	1.0 to 5pF	1.0 to 10pF	1.0 to 14pF
Q (min) at 100MHz @ Max. C*	5000	5000	3000
DC Working Voltage	250	250	125
DC Withstanding Voltage	500	500	250
Temperature Coefficient	50±50 ppm/°C	50±50 ppm/°C	50±50 ppm/°C
Insulation Resistance @ 25°C	10^6 MΩ	10^6 MΩ	10^6 MΩ
Seal	40 pounds/in²	40 pounds/in²	40 pounds/in²
Operating Temperature	- 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
Tuning Torque	0.5 to 5.0 in-oz	0.5 to 5.0 in-oz	0.5 to 5.0 in-oz
Shock	1,500g, 0.5 milliseconds	1,500g, 0.5 milliseconds	1,500g, 0.5 milliseconds
Vibration	50g at 10 - 2000 Hz	50g at 10 - 2000 Hz	50g at 10 - 2000 Hz

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



Air Trimmers

FIGURE 1

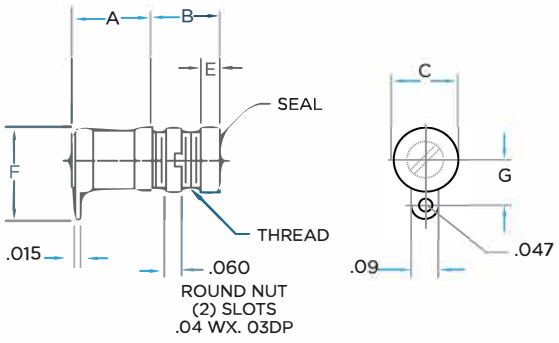
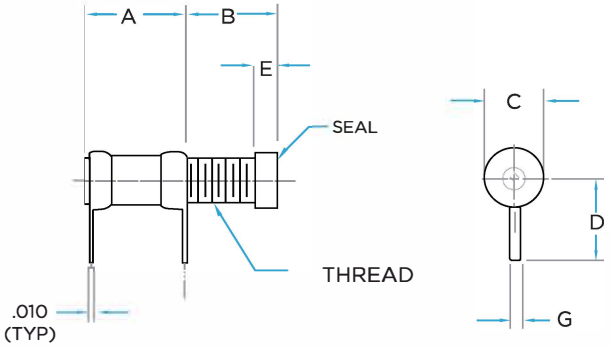


FIGURE 2



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions								Figure
			A	B	C	D	E	F	G	THREAD	
5801	0.35 to 3.5	>10000	0.28	0.215	.160/.150	0.22	0.06	-	0.03	.120-80	2
5851	0.5 to 5.0	>7500	0.28	0.245	.160/.150	0.22	0.06	-	0.03	.120-80	2
5700	0.6 to 6.0	>10000	0.27	0.21	.235/.215	-	0.06	0.32	0.16	190-64	1
5750	0.8 to 10.0	>7500	0.27	0.23	.235/.215	-	0.06	0.32	0.16	190-64	1

Dimensions (inches)

FIGURE 3

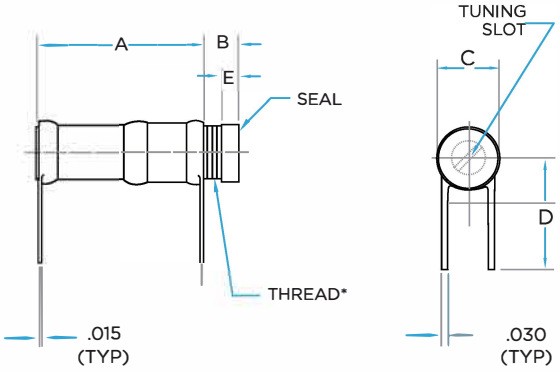
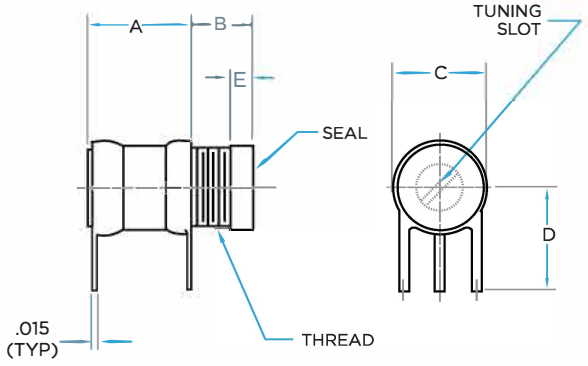


FIGURE 4



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions						Figure
			A	B	C	D	E	THREAD	
5701	0.6 to 6.0	>10000	0.29	0.19	.235/.215	0.25	0.06	.190-64	4
5201	0.8 to 10.0	>5000	0.32	0.19	.295/.275	0.31	0.08	.234-64	4
5751		>7500	0.29	0.22	.235/.215	0.25	0.06	.190-64	4
5401	1.0 to 14.0	>3000	0.32	0.19	.310/.290	0.50	0.08	.234-64	4
5451	1.0 to 16.0	>3000	0.32	0.19	.295/.275	0.31	0.08	.234-64	4
5501	1.0 to 20.0	>1500	0.58	0.16	.295/.275	0.50	0.08	.234-64	4
5601	1.0 to 30.0	>800	0.76	0.16	.295/.275	0.50	0.08	.234-64	3

Dimensions (inches)
Note: All Air Trimmers are available with or without hardware. Hardware may be purchased separately

Air Trimmers

FIGURE 1

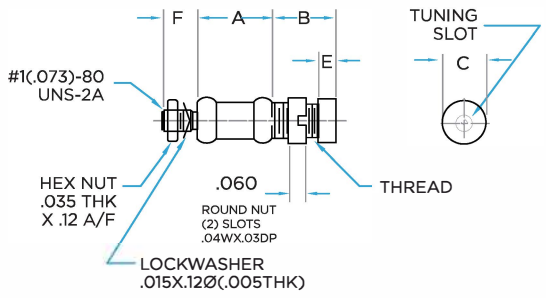
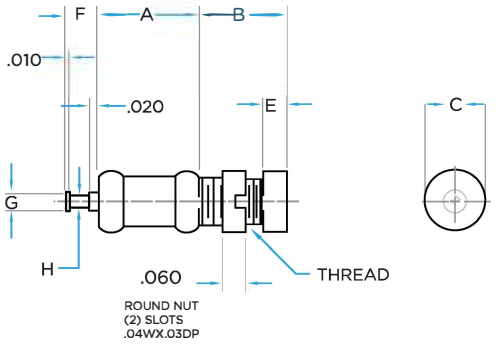


FIGURE 2



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions									Figure
			A	B	C	D	E	F	G	H	THREAD	
5800	0.35 to 3.5	>10000	0.27	0.23	.160/.150	-	0.06	0.125	-	-	.120-80	1
5802					.160/.150	-		0.08	0.045	0.030		2
5850	0.5 to 5.0	>7500		0.26	.160/.150	-		0.125	-	-		1
5852					.160/.150	-		0.08	0.045	0.030		2
5702	0.6 to 6.0	>10000		0.21	.235/.215	-		0.08	0.06	0.040	190-64	2
5752	0.8 to 10.0	>7500		0.23	.235/.215	-		0.08	0.06	0.040		2

Dimensions (inches)

FIGURE 3

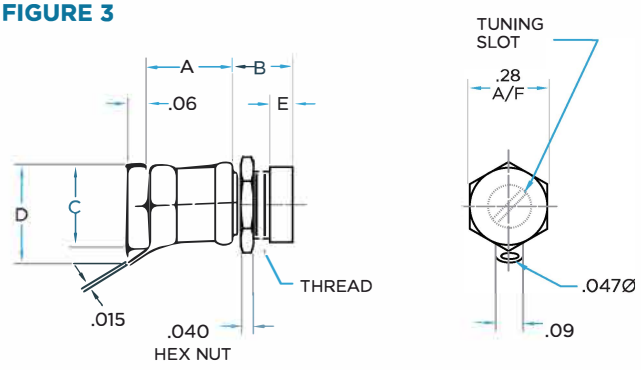
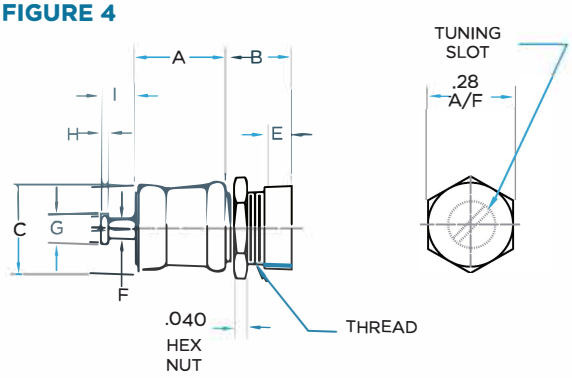


FIGURE 4



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions										Figure
			A	B	C	D	E	F	G	H	I	THREAD	
5200	0.8 to 10.0	>5000	0.30	0.21	0.295/0.275	0.35	0.08	-	-	-	-	.234-64	3
5202			0.29			-		0.06	0.09	0.02	0.11		4
5302	1.0 to 10.0	>2000	0.42	0.30	0.375/0.355	-	0.11	0.09	0.125	0.02	0.11	.312-64	4
5400	1.0 to 14.0	>3000	0.30	0.21	0.295/0.275	0.35	0.08	-	-	-	-	.234-64	3
5402			0.29			-		0.06	0.09	0.02	0.11		4
5500	1.0 to 20.0	>1500	0.49	0.25	0.295/0.275	0.35	0.08	-	-	-	-	.234-64	3
5502						-		0.06	0.09	0.02	0.11		4
5600	1.0 to 30.0	>800	0.68	0.25	0.295/0.275	0.35	0.08	-	-	-	-	.234-64	3
5602								0.06	0.09	0.02	0.11		4

Dimensions (inches)
Note: All Air Trimmers are available with or without hardware. Hardware may be purchased separately.

Air Trimmers

FIGURE 1

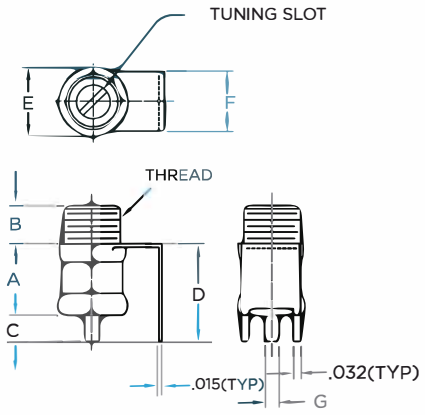


FIGURE 2

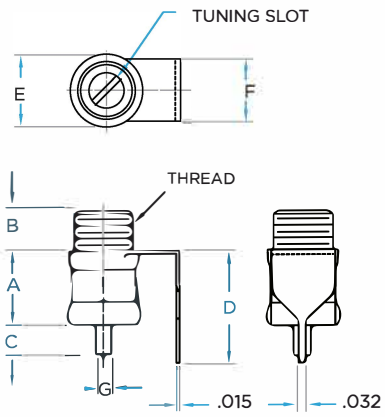


FIGURE 3

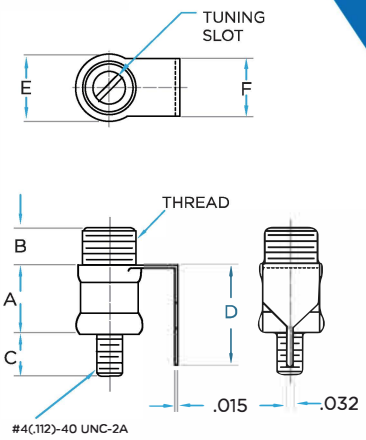


FIGURE 4

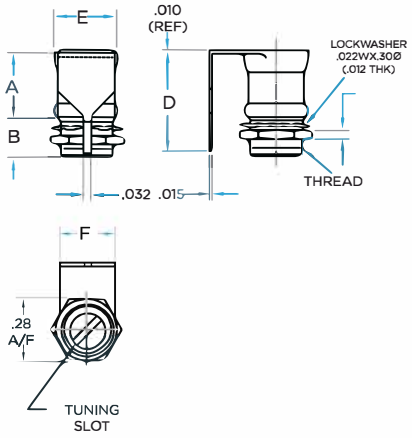


FIGURE 5

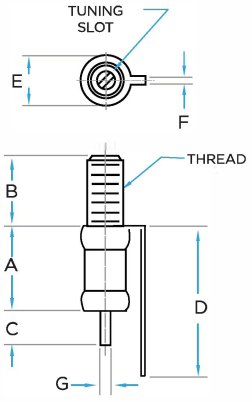
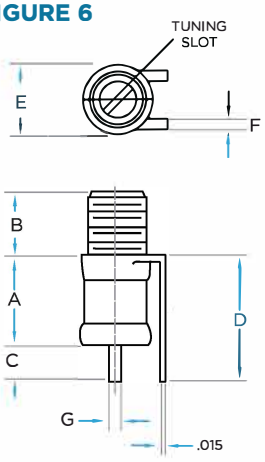


FIGURE 6



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions								Figure
			A	B	C	D	E	F	G	THREAD	
8051	0.6 to 3.5	>10000	0.28	0.195	0.11	0.48	.160/.150	0.02	0.03	.120-80	5
5853	0.6 to 5.0	>7500	0.28	0.225	0.11	0.48	.160/.150	0.02	0.03	.120-80	5
8050	0.7 to 6.0	>10000	0.29	0.17	0.11	0.40	.235/.215	0.03	0.04	.190-64	5
5753	1.0 to 10.0	>7500	0.29	0.20	0.11	0.40	.235/.215	0.03	0.04	.190-64	6
8052	1.0 to 10.0	>5000	0.30	0.16	0.11	0.40	.295/.275	0.04	0.062	.234-64	5
8090	1.0 to 10.0	>2000	0.30	0.16	0.188	0.44	.295/.275	0.25	-	.234-64	3
8053	1.5 to 14.0	>3000	0.30	0.16	0.11	0.40	.295/.275	0.24	0.062	.234-64	5
8091	1.5 to 14.0	>2000	0.30	0.175	-	0.44	.295/.275	0.25	-	.234-64	4
8092	1.5 to 14.0	>2000	0.30	0.16	0.11	0.41	.295/.275	0.25	0.062	.234-64	1
8093	1.5 to 14.0	>2000	0.30	0.16	0.11	0.44	.295/.275	0.25	0.062	.234-64	2
5453	1.5 to 16.0	>3000	0.30	0.19	0.11	0.43	.295/.275	0.03	0.062	.234-64	6
8054	1.5 to 20.0	>1500	0.58	0.125	0.11	0.70	.295/.275	0.04	0.062	.234-64	5

Dimensions (inches)
Note: All Air Trimmers are available with or without hardware. Hardware may be purchased separately.

Air Trimmers

K Series

FIGURE 1

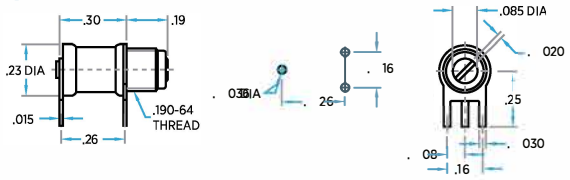


FIGURE 2

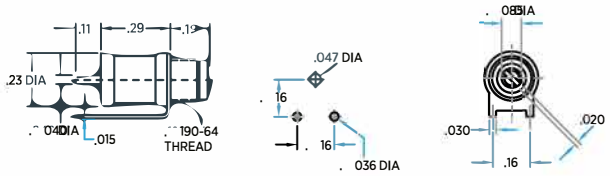


FIGURE 3

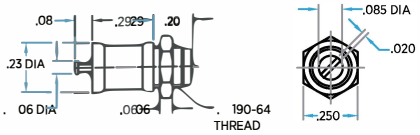


FIGURE 4

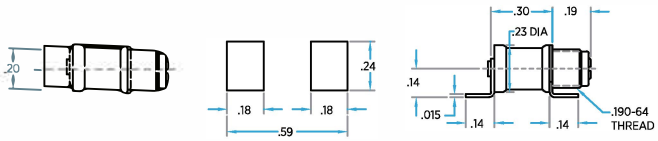


FIGURE 5

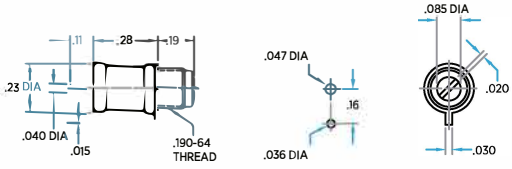
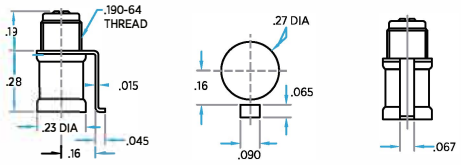


FIGURE 6



Part Number "K" Series	Capacitance Range (pF)		DC Working Voltage	Figure
	From Below	To Above		
KP6	0.8	6.0	250	1
KP8	0.8	8.0	250	1
KP10	0.8	10.0	125	1
KF8	0.6	8.0	250	2
KF10	0.6	10.0	125	2
KT6	0.6	6.0	250	3
KT8	0.6	8.0	250	3
KT10	0.6	10.0	125	3
KJ8	0.6	8.0	250	4
KJ10	0.6	10.0	125	4
KG8	0.6	8.0	250	5
KG10	0.6	10.0	125	5
KM8	0.6	8.0	250	6
KM10	0.6	10.0	125	6

Note: All Air Trimmers are available with or without hardware.
Hardware may be purchased separately.

Air Dielectric Variable Trimmers

DESCRIPTION

- Concentric tubular design
- Torque mechanism insures low ESR and low dynamic noise
- Available in PC, panel mount, vertical mount and surface mount terminations
- High Reliability testing available

CHARACTERISTICS

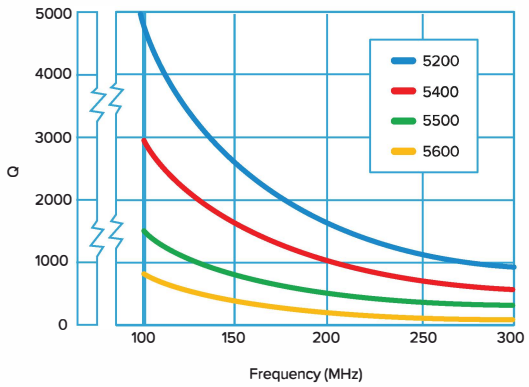
- Rated voltage: 250 VDC (5300 series 500 VDC)
- Insulation resistance: $>10^6 M\Omega$ @ 500 VDC
- Contact resistance: <.01 Ω
- Operating temperature: -65°C to +125°C
- Vibration: 60g, 10-2000 Hz
- Shock: 1500g, .5 milliseconds
- 574°F solder used in construction

APPLICATIONS

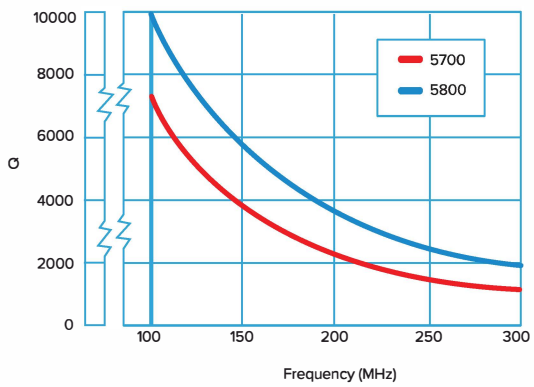
- RF amplifiers and oscillators
- Impedance matching
- Interstage coupling
- Filter tuning
- Crystal trimming

Note: The use of a Knowles tuning tool is recommended. Improper screwdriver size will cause internal thread damage.

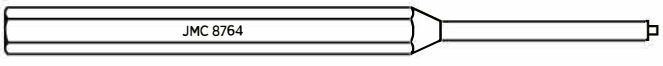
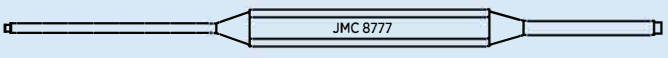
TYPICAL PERFORMANCE CURVES 5200/5400/5500/5600 SERIES



TYPICAL PERFORMANCE CURVES 5700/5800 SERIES



TUNING TOOLS

Trimmer Series	Diameter	Johanson Part Number	
5200, 5300, 5400, 5500, 5600, 5700	.130	8777	
		8764	
5800	.078	8777	

Non-Magnetic Air Trimmers

DESCRIPTION

- Non-Magnetic construction
- High stability and Q
- 250 VDC working voltage
- Utilizes self-locking constant torque drive mechanism

RECOMMENDED TUNING TOOL

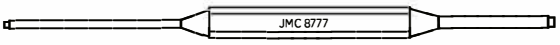


FIGURE 1

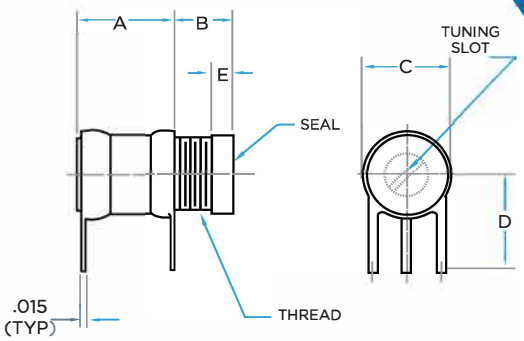


FIGURE 2

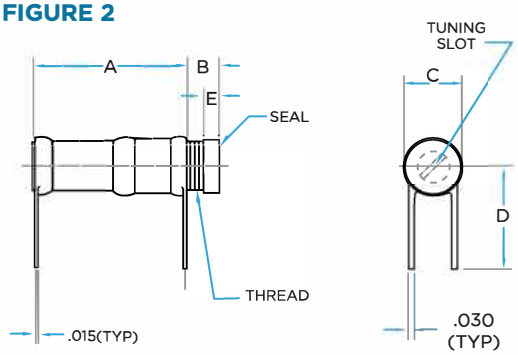


FIGURE 3

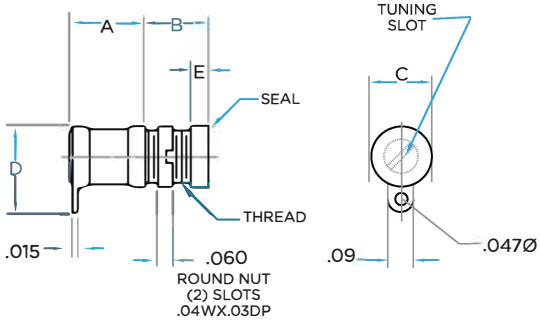


FIGURE 4

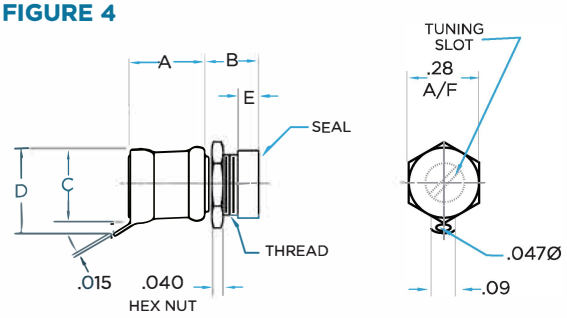
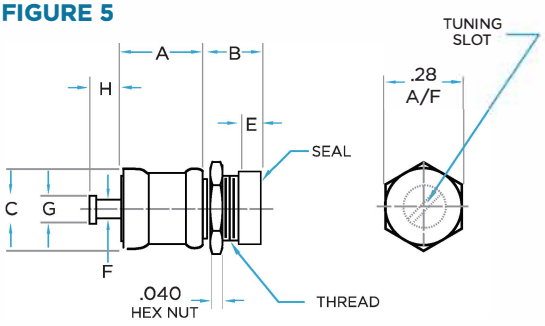


FIGURE 5



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions									Figure
			A	B	C	D	E	F	G	H	THREAD	
5862	0.4 to 3.5	>10000	0.27	0.225	.160/.150	-	0.06	0.03	0.045	0.080	.120-80	5*
5760	0.6 to 6.0	>10000	0.27	0.21	.235/.215	0.32		-	-	-	.190-64	3
5761			0.29	0.19		0.22		-	-	-		1
5762			0.27	0.21		-		0.04	0.06	0.080		5*
5240	0.8 to 10.0	>4000	0.30	0.21	.295/.275	0.35	0.08	-	-	-	.234-64	4
5241			0.32	0.19		0.31		-	-	-		1
5242			0.29	0.21		-		0.06	0.09	0.11		5
5640	1.0 to 30.0	>800	0.68	0.25	.295/.275	0.35		-	-	-	.234-64	4
5641			0.76	0.16		0.50		-	-	-		2
5642			0.68	0.25		-		0.06	0.09	0.11		5

Dimensions (inches)
Note: All Air Trimmers are available with or without hardware. Hardware may be purchased separateley.

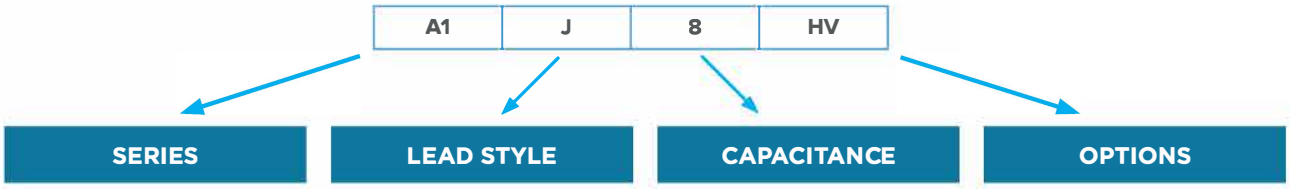
*5862 & 5762 are supplied with a round nut instead of a hexagon.

PTFE Trimmers
A1 Series



The Voltronics A1 Series of high reliability solid dielectric trimmer capacitors is an ideal economical replacement for conventional miniature air and sapphire dielectric trimmers and assures no intermittent noiseless performance.

High reliability solid dielectric, positive tuning stops and up to 13 full turns of linear tuning make the A1 Series an outstanding performer: 40 psi sealed, high voltage and non-magnetic versions are readily available.



OPTIONS:

The "HV" Option - high voltage applications:
Add "HV" to the part number, i.e., A1T4HV.

SPECIFICATIONS ARE AS FOLLOWS:

Capacitance	DC Volts Working	DC Volts Withstanding
4pF	1000	2000
8pF	500	1000
11pF	500	1000

NON-MAGNETIC OPTION:

Most parts shown can be ordered as non-magnetic.
Add "NM" to the part number, i.e., NMA1J8.

SEALED OPTION:

All parts shown can be ordered as 40 psi sealed.
Add "S" to the part number, i.e., A1M4S.

TAPE & REEL OPTIONS:

Consult Factory - M & J style only
Recommended Tuning Tool: TT-400

General Specifications	A1_4	A1_8	A1_12
Capacitance Range	0.45 to 4pF	0.5 to 8pF	0.8 to 11pF
DC Working Voltage	250	125	125
DC Withstanding Voltage	500	250	250
Self-Resonant Frequency*	2.3 GHz at 4pF	1.7 GHz at 8pF	1.2 GHz at 11pF
Number of Turns	7	7	13
Q (min) at 100 MHz @ Max. C*	4000	3000	2000
Temperature Coefficient	0±50ppm/°C	0±100ppm/°C	0±150ppm/°C
Insulation Resistance @ 25° C	10^6 MΩ		
Operating Temperature	-65°C to +125°C		
Tuning Torque	0.3 to 1.0 in - oz		
Shock	1,500g, 0.5 millisecs.		
Vibration	50g at 10 - 2000 Hz		

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

PTFE Trimmers
A1 Series

FIGURE 1

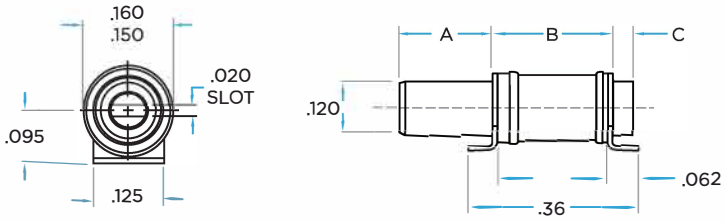


FIGURE 2

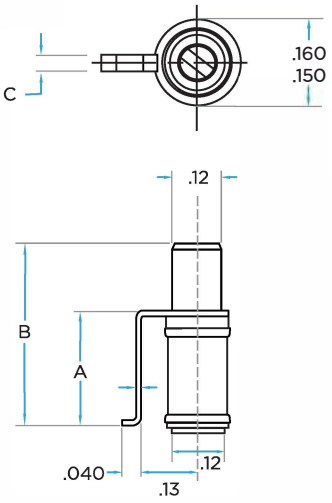
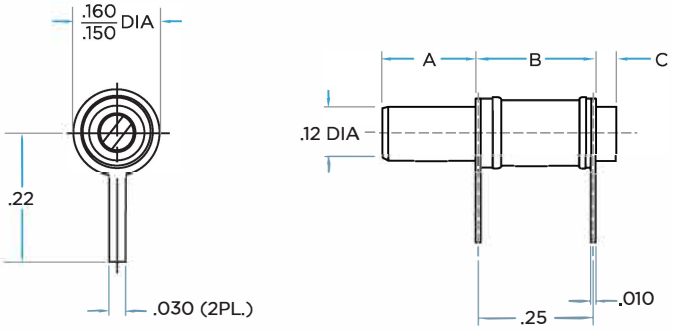


FIGURE 3



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions			Figure
			A	B	C	
A1J4	0.45 to 4.0	>4000	0.14	0.26	-	1
A1J8	0.5 to 8.0	>3000	0.14	0.26	-	1
A1J12	0.8 to 11.0	>2000	0.20	0.26	0.05	1
A1M4	0.45 to 4.0	>4000	0.26	0.40	0.03	2
A1M8	0.5 to 8.0	>3000	0.26	0.40	0.03	2
A1M12	0.8 to 11.0	>2000	0.30	0.50	0.02	2
A1P4	0.45 to 4.0	>4000	0.14	0.26	-	3
A1P8	0.5 to 8.0	>3000	0.14	0.26	-	3
A1P12	0.8 to 11.0	>2000	0.20	0.26	0.04	3

Miniature PTFE Trimmers
A4 Series



The Voltronics A4 Series unique design using minimal parts simplifies the manufacturing process to effect one of the most economical high performance trimmer capacitors available in the industry.

The Voltronics A4 Series also features a high reliability solid dielectric, positive tuning stops and up to 5 full turns of linear tuning in the shortest length of any similar trimmer capacitor. The Voltronics A4 is an ideal choice for tuning and impedance matching, high frequency and high power amplifier circuits.

A4	J	8	HV
SERIES	LEAD STYLE	CAPACITANCE	OPTIONS

OPTIONS:

The "HV" Option - high voltage applications:
Add "HV" to the part number, i.e., A4T4HV.

SPECIFICATIONS ARE AS FOLLOWS:

Part Number	DC Volts Working	DC Volts Withstanding
A4_3 HV	500	1000
A4_5 HV	500	1000

NON-MAGNETIC OPTION:

All parts can be ordered as non-magnetic. Add "NM" to the part number, i.e. NMA4J3

TAPE AND REEL OPTIONS:

Tape and Reel Options: Consult Factory
M style only

General Specifications	A4_3	A4_5
Capacitance Range	0.45 to 3pF	0.6 to 5pF
DC Working Voltage	125	125
DC Withstanding Voltage	250	250
Self-Resonant Frequency*	3 GHz at 3pF	1.8 GHz at 5pF
Number of Turns	4	5
Q (min) at 100 MHz @ Max. C*	3000	2000
Temperature Coefficient	0±100ppm/°C	0±300ppm/°C
Insulation Resistance @ 25° C	10^6 MΩ	
Operating Temperature	-65°C to +125°C	
Tuning Torque	0.3 to 1.0 in - oz	
Shock	1,500g, 0.5 millisecs.	
Vibration	50g at 10 - 2000 Hz	

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

Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions		Figure
			A	B	
A4J3	0.45 to 3.0	>3000	0.225	-	1
A4J5	0.6 to 5.0	>2000	0.325	-	1
A4M3	0.45 to 3.0	>3000	0.225	0.22	2
A4M5	0.6 to 5.0	>2000	0.325	0.278	2
A4P3	0.45 to 3.0	>3000	0.225	-	3
A4P5	0.6 to 5.0	>2000	0.325	-	3

FIGURE 1

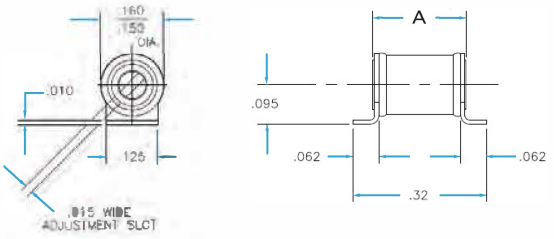


FIGURE 2

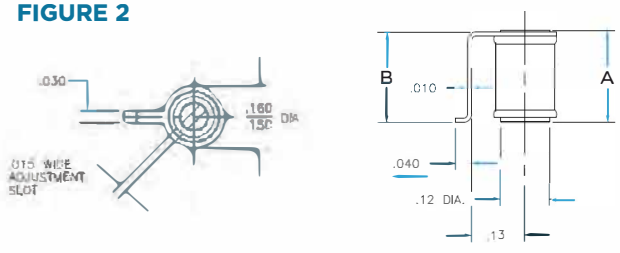
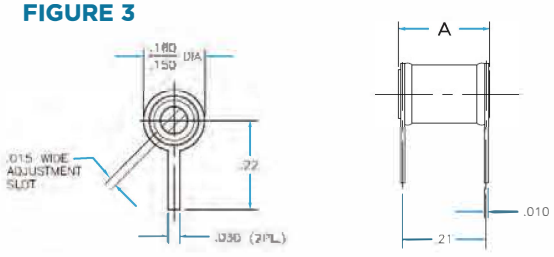


FIGURE 3



HV PTFE Trimmers
A_HV Series

THE ONLY INTERNALLY SEALED HIGH VOLTAGE PTFE TRIMMER

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.

A	J	8	HV
SERIES	LEAD STYLE Refer to page 21	CAPACITANCE	OPTIONS

General Specifications	A_4HV	A_10 HV	A_15 HV	A_25 HV	A_40 HV	A_55 HV
Capacitance Range	1 to 4pF	1 to 10pF	1 to 16pF	1 to 23pF	1.5 to 40pF	1.5 to 55pF
DC Working	1000	1000	1000	750	1000	600
DC Withstanding	2000	2000	2000	1500	2000	1200
Q (min) at 100MHz @ Max. C*	2000	2000	2000	2000	2000	-
Q (min) at 75MHz @ Max. C*	-	-	-	-	-	780
Temperature Coefficent - 0±100ppm/°C	0±100 ppm/°C	50±50 ppm/°C	50±50 ppm/°C	50±50 ppm/°C	0±100 ppm/°C	0±100 ppm/°C
Insulation Resistance @ 25°C	10^6 MΩ	10^6 MΩ	10^6 MΩ	10^6 MΩ	10^6 MΩ	10^6 MΩ
Seal	40 pounds/in²	40 pounds/in²	40 pounds/in²	40 pounds/in²	40 pounds/in²	40 pounds/in²
Operating Temperature	-65°C to +125°C	-65°C to +125°C	-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	600 Turns	600 Turns
Tuning Torque	.05 to 5.0 in-oz	.05 to 5.0 in-oz	.05 to 5.0 in-oz	.05 to 5.0 in-oz	.05 to 5.0 in-oz	.05 to 5.0 in-oz
Shock	1500g, 0.5 millisecs.	1500g, 0.5 millisecs.	1500g, 0.5 millisecs.	1500g, 0.5 millisecs.	1,500g, 0.5 millisecs.	1,500g, 0.5 millisecs.
Vibration	50g at 10-2000 Hz	50g at 10-2000 Hz	50g at 10-2000 Hz	50g at 10-2000 Hz	50g at 10-2000 Hz	50g at 10-2000 Hz

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

Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions A	B	C	Figure
AJ10HV	1.0 to 10.0	>2000	0.31	0.19	-	1
AJ15HV	1.0 to 16.0	>2000	0.31	0.19	-	1
AJ25HV	1.0 to 23.0	>2000	0.31	0.19	-	1
AJ40HV	1.5 to 40.0	>780	0.55	0.44	-	1
AJ55HV	1.5 to 55.0	>2000	0.55	0.44	-	1
AM10HV	1.0 to 10.0	>2000	-	-	-	2
AM15HV	1.0 to 16.0	>2000	-	-	-	2
AM25HV	1.0 to 23.0	>2000	-	-	-	2
AP10HV	1.0 to 10.0	>2000	0.31	0.19	0.28	3
AP15HV	1.0 to 16.0	>2000	0.31	0.19	0.28	3
AP25HV	1.0 to 23.0	>2000	0.31	0.19	0.28	3
AP40HV	1.5 to 40.0	>2000	0.56	0.44	0.54	3
AP55HV	1.5 to 55.0	>780	0.56	0.44	0.54	3

OTHER FEATURES INCLUDE:

- Ten or 29 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

OPTIONS:

NON-MAGNETIC OPTION:
All parts can be ordered as non-magnetic.
Add "NM" to the part number, i.e. NMAM15HV

TAPE AND REEL OPTIONS:
Tape and Reel Options: Consult Factory M style only

EXTENDED SHAFT OPTIONS:
Add "E" to the part number, i.e. AM10HVE

FIGURE 1

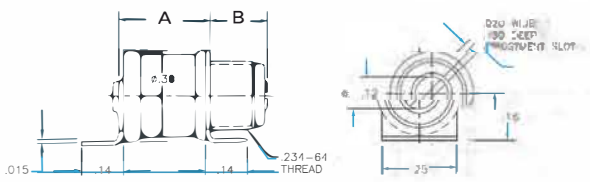


FIGURE 2

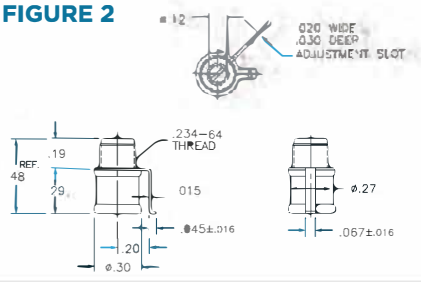
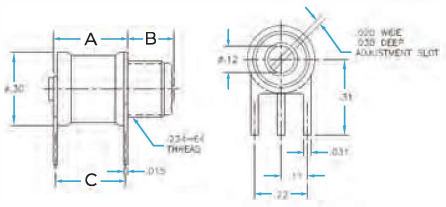


FIGURE 3



PTFE Trimmers
K_HV Series

FIGURE 1

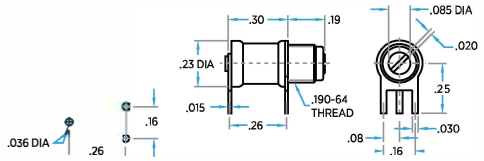


FIGURE 2

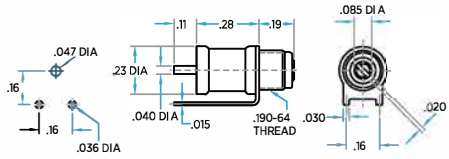


FIGURE 3

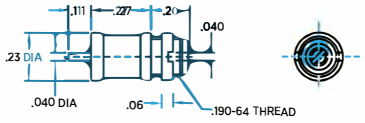


FIGURE 4

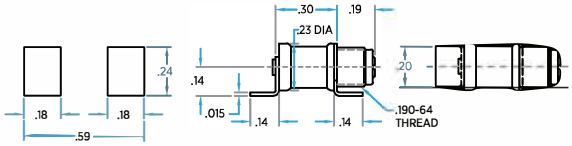
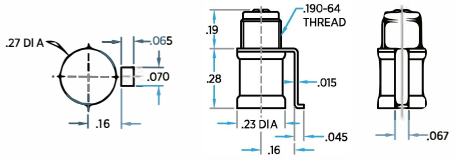
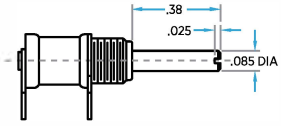


FIGURE 5



Note: All bushing threads are .190"-64

EXTENDED METAL SHAFT



Add "E" to Part Number, i.e., KP10HVE.

General Specifications	K_HV
Q at 100MHz at maximum rated C*	780 (1pF)
Q at 100MHz at maximum rated C*	2000 (4 & 9pF)
Temperature Coefficient	50±50ppm/°C
Insulation Resistance	10^6 MΩ
Seal	40 pounds/in²
Operating Temperature	-65°C to +125°C
Rotational Life	600 turns
Torque	.05 to 5.0 in-oz
Vibration	50g at 10-2000 Hz
Shock	1500g, 0.5 millisecs.

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

Part Number "K" Series	DC Working Voltage	DC Withstanding Voltage	Capacitance Range (pF) From Below	Capacitance Range (pF) To Above	Figure
KP1HV	1000	2000	0.2	1	1
KP1SD	250	500	0.2	1	1
KP4HV	1000	2000	0.6	4	1
KP4SD	250	500	0.6	4	1
KP10HV	1000	2000	1.0	9	1
KF4HV	1000	2000	0.6	4	2
KF4SD	250	500	0.6	4	2
KF10HV	1000	2000	1.0	9	2
KT1HV	1000	2000	0.2	1	3
KT1SD	250	500	0.2	1	3
KT4HV	1000	2000	0.6	4	3
KT4SD	250	500	0.6	4	3
KT10HV	1000	2000	1.0	9	3
KJ1HV	1000	2000	0.2	1	4
KJ1SD	250	500	0.2	1	4
KJ4HV	1000	2000	0.6	4	4
KJ4SD	250	500	0.6	4	4
KJ10HV	1000	2000	1.0	9	4
KM4HV	1000	2000	0.6	4	5
KM4SD	250	500	0.6	4	5
KM10HV	1000	2000	1.0	9	5

Very High Voltage PTFE Trimmers



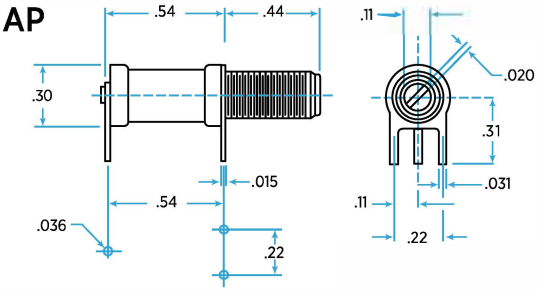
This range of Voltronics trimmer capacitors provides a further extension in voltage rating to the HV range. Working voltage is 2kV and dielectric withstand voltage is 4kV. The solid internal PTFE dielectric prevents ionization, a major advantage in space, high altitude and high voltage applications. The unique internal O-ring seal makes wave soldering and vapor degreasing possible without the need to attach a separate cap.

A	J	8	HV
SERIES	LEAD STYLE P, J & T Lead Styles Refer to page 21	CAPACITANCE	OPTIONS

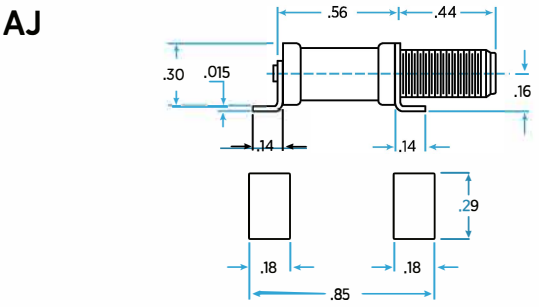
OPTIONS

Extended metal shaft.
Add 'E' to the part number i.e. AT10-4E

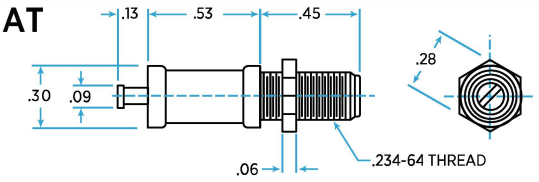
AP



AJ



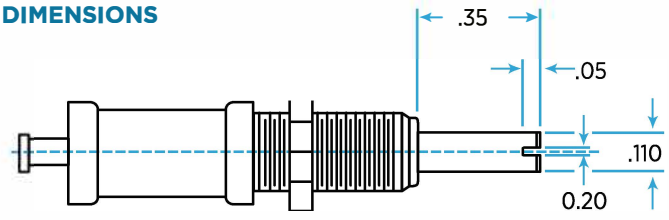
AT



Note: Self Resonant frequency and Q are measured with no terminal on the part

General Specifications	A_10-4	A_20-4
Capacitance Range	0.8 to 10pF	0.8 to 20pF
DC Working Voltage	2000	2000
DC Withstanding Voltage	4000	4000
Self-Resonant Frequency*	4.25 GHz at 2pF	3 GHz at 3pF
Q (min) at 100 MHz © Max. C*	3000	3000
Temperature Coefficient	-50±-50 ppm/°C	0-100 ppm/°C
Insulation Resistance @ 25°C	10^6 MΩ	10^6 MΩ
Operating Temperature	-65°C to +125°C	-65°C to +125°C
Tuning Torque	0.5 to 5.0 in-oz	0.5 to 5.0 in-oz
Shock	1500g, 0.5 millisecs.	1500g, 0.5 millisecs.
Vibration	50g at 10-2000 Hz	50g at 10-2000 Hz

DIMENSIONS



Note: For Non-Magnetic parts add 'NM' to part number, i.e. NMAT10-4

Non-Magnetic PTFE Trimmers NMNT Series



4kV TO 10kV

Voltronics NMNT Series of PTFE trimmers are designed for applications requiring greater capacitance and voltage ratings than the popular smaller trimmers but without the large size and expense of vacuum capacitors.

THE NMNT SERIES OFFERS:

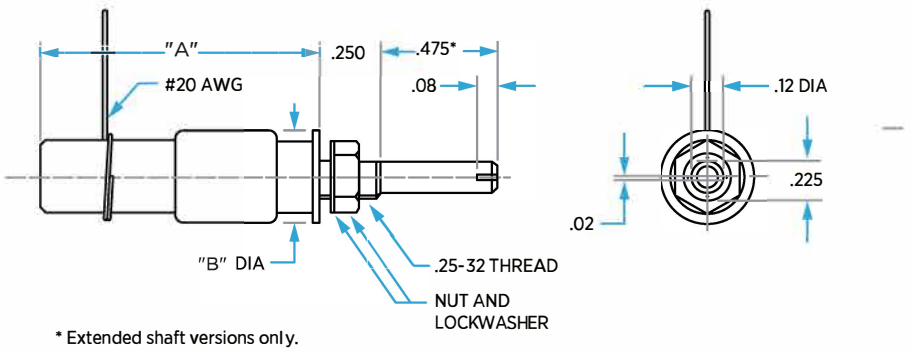
- High voltage
- Non-rotating piston, long life and no tuning noise
- Extremely stable under shock and vibration
- Non-translating screw head

Proven RF performance and power handling these high performance trimmer capacitors are utilized in MRI body coils, NMR equipment and RF power transfer applications.

Part Number	DC Working Voltage	DC Withstanding Voltage	Capacitance (pF) <	Capacitance (pF) >	"A" Dim	"B" Dim
NMNT5-8	4000	8000	1.0	5.0	1.13	0.38
NMNT5-18	8750	17500	1.0	5.0	2.0	0.75
NMNT10-6	3000	6000	1.0	10.0	1.15	0.38
NMNT10-12	6000	12000	2.0	10.0	1.85	.063
NMNT15	2000	4000	1.0	15.0	1.69	0.31
NMNT23-6	3000	6000	3.0	23.0	1.70	0.38
NMNT23-12	6000	12000	3.0	23.0	1.85	0.63
NMNT25-6	3000	6000	5.0	25.0	1.63	0.63
NMNT25-15	7500	15000	7.0	25.0	1.76	1.13
NMNT70-6	3000	6000	2.5	70.0	3.0	0.70
NMNT100-4	2500	3600	2.0	95.0	4.25	0.31

Note: Preferred parts. Others available but may be subject to an increased MOQ.
Additional voltage ratings are available. Contact customer service.

DIMENSIONS NMNT SERIES



* Extended shaft versions only.

High Voltage Trimmers



CHARACTERISTICS

- Rated voltage: 1250 VDC - test voltage 2500 VDC (52H02)
  1000 VDC - test voltage 2000 VDC (55H01) (55H02) (80H85)
- Q >1400@ 195 MHz (52H02)
- Q >1000@ 175 MHz (55H01) (55H02) (80H85)
- Insulation resistance: $>10^6$ MΩ
- Operating temperature range: -65°C to +125°C
- Torque: 1 to 10 oz. in.
- Contact resistance: <.01 Ω)
- Additional terminal configurations available. Contact facility

RECOMMENDED TUNING TOOL

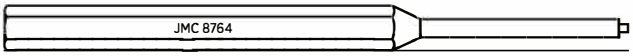


FIGURE 1

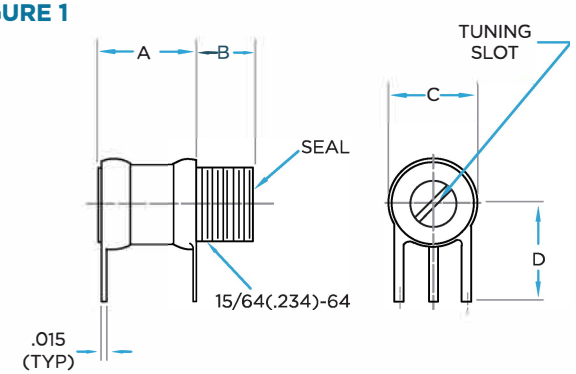


FIGURE 2

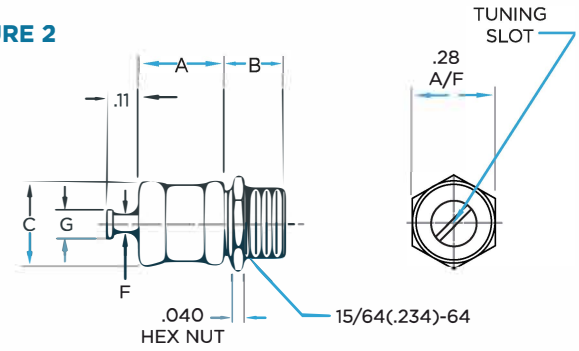
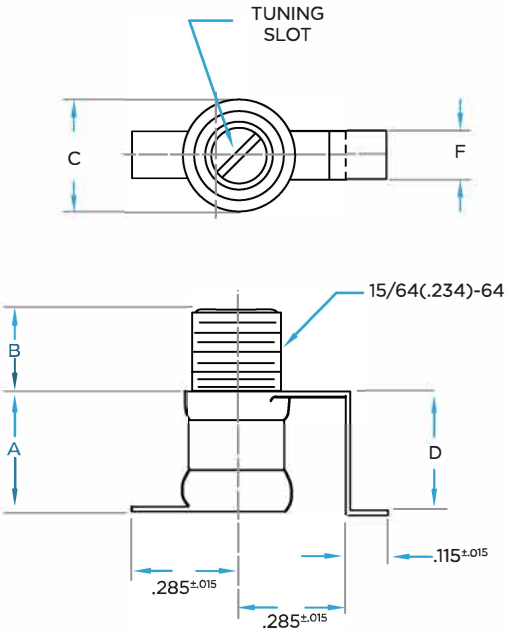


FIGURE 3



Part Number	Capacitance Range (pF)	Min. Q @ 100 MHz	Dimensions							Figure
			A	B	C	D	E	F	G	
52H01	1.5 to 10.0	>1400*	0.31	0.22	.295/.275	0.31	-	-	-	1
52H02						-		0.06	0.09	2
55H01	1.5 to 19.0	>1000	0.31	0.22	.295/.275	0.31	-	-	-	1
55H02	1.5 to 19.0	>1000	0.31	0.22	.295/.275	-	-	0.06	0.09	2
80H85	1.5 to 19.0	>1000	0.31	0.22	.295/.275	0.32	-	0.125	-	3

Notes: Dimensions (inches). *Q @ 195MHz.

Giga-Trim® Trimmers



DESCRIPTION

- Sapphire dielectric
- Ceramic dielectric
- Zirconia High K dielectric
- High Q
- 500 VDC working voltage
- Select part numbers available on tape and reel
- Utilizes the same constant torque drive mechanism as Knowles air capacitors and tuning elements

CHARACTERISTICS

- Rated voltage: 500 VDC
- Insulation resistance: >10^6 MΩ @ 500 VDC
- Rotational life exceeds Mil-C-14409
- Contact resistance: <.01 Ω
- Operating temperature: -65°C to +125°C
- Vibration: 15g, 10-2000 Hz
- Shock: 100g, 6 milliseconds

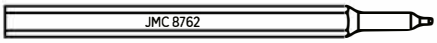
APPLICATIONS

- Impedance matching
- Crystal trimming
- Interstage coupling
- Base station amplifier

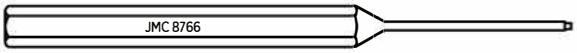
SEAL CAPS

Type	Part Number	Capacitor Type	Material
17273	P4446-2	"Poke-Thru" Seal Cap	Teflon®
27260 Thru 27265	P4445-1	Standard Seal Cap	Teflon®
27270 Thru 27295	P4445	Standard Seal Cap	Teflon®
27260 Thru 27265	P4446-1	"Poke-Thru" Seal Cap	Teflon®
27270 Thru 27295	P4446	"Poke-Thru" Seal Cap	Teflon®
47273 Thru 47285	P4446-2	"Poke-Thru" Seal Cap	Teflon®
57263	P4446-1	"Poke-Thru" Seal Cap	Teflon®

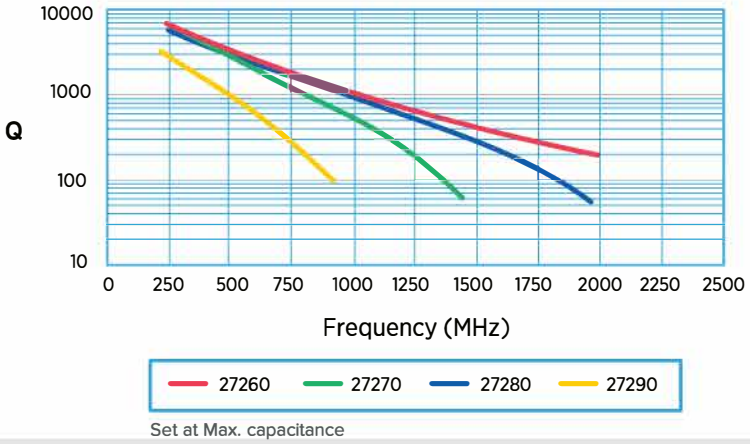
JMC Drive Tuning Tool 8762



JMC Drive Tuning Tool 8766



Note: The use of a Johanson tuning tool is recommended. Improper screwdriver size will cause internal thread damage.



Set at Max. capacitance