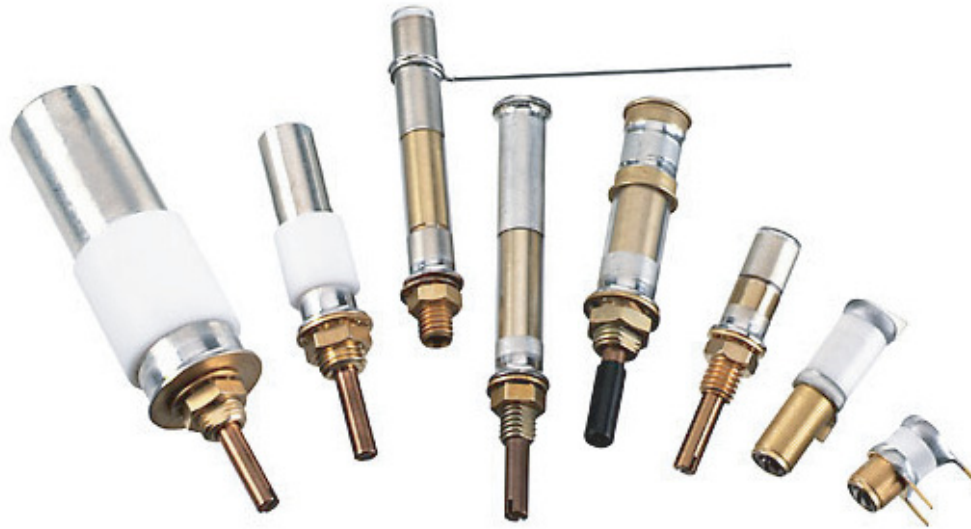


# Non-magnetic Trimmer Capacitors



Voltronics Corporation has produced non-magnetic trimmer capacitors for over 25 years. The increasing applications have impelled the company to mount an active, continuing engineering effort in this field.

## NON-MAGNETIC PROPERTIES

The severe requirement for non-magnetic properties is such that in a 14,000 Gauss field the capacitors must not distort the useable field by more than one part per 600 million. To achieve this, no materials or platings exhibiting measurable magnetism, such as stainless steel or nickel, are used. Commercial brass is unacceptable. Typical magnetic susceptibility is  $40 \times 10^{-6}$  CGS units. Voltronics' strict traceability system and its testing for minute magnetism insure this essential parameter.

## SEAL

Most of the capacitors are internally sealed so that they can withstand immersion in flux and cleaning solvents without leaking.

## SPECIAL DESIGNS

Most of the parts shown in this catalog were developed for a specific customer application. Many other mounting configurations are available. Call the factory to discuss your special needs.

## CRYOGENIC TRIMMER CAPACITORS

Most of these non-magnetic trimmer capacitors can be used and even tuned at temperatures down to  $4^{\circ}$  K. They are specially made and have been used in many NMR applications. We can design parts which will work for a variety of special situations. Consult the factory with your requirements.

To order parts for cryogenic applications, add "K" to the part number, i.e., NMTM120CK.

We can't test at these temperatures. Each application is different, but consult us if there is a problem which may have already been solved.

## SPLIT STATOR AND DIFFERENTIAL STYLES

Non-magnetic versions of these styles are available. Consult the factory for detailed specifications.

# SAPPHIRE

## Non-magnetic Trimmer Capacitors

FIG. 1

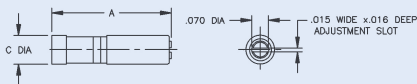
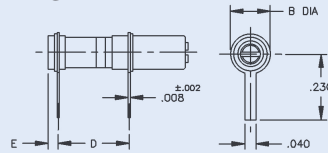


FIG. 2



Optional Configurations

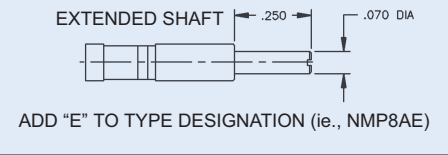


FIG. 3

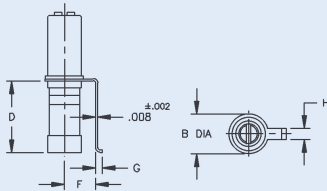


FIG. 4

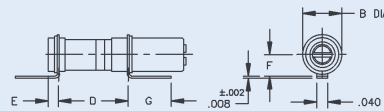
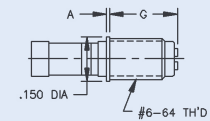


FIG. 5



**IN** 0.002 0.005 0.008 0.010 0.014 0.015 0.018 0.020 0.025 0.034 0.036 0.040 0.045 0.047 0.056 0.060 0.070 0.075 0.082 0.090 0.093 0.094 0.100 0.110 0.118 0.125 0.130 0.140 0.148 0.150 0.160 0.183 0.190 0.230 0.240 0.245 0.250 0.329 0.495  
**MM** 0.05 0.13 0.20 0.25 0.36 0.38 0.46 0.51 0.64 0.86 0.91 1.02 1.14 1.19 1.42 1.52 1.78 1.91 2.08 2.29 2.36 2.39 2.54 2.79 3.00 3.18 3.30 3.56 3.76 3.81 4.06 4.65 4.83 5.84 6.10 6.22 6.35 8.36 12.57

Type	Fig.	Capacitance Range (pF)		Q (Min.) 250 MHz	Tolerances (where not specified) ± .016							
		From Below	To Above		A (max)	B DIA.	C± .005	D± .010	E± .010	F	G	H± .005
NMP3A	1	0.6	2.5	4,000	.240	-	.118	-	-	-	-	-
NMP5A	1	0.6	4.5	3,000	.329	-	.118	-	-	-	-	-
NMP8A	1	0.8	7.0	1,500	.495	-	.118	-	-	-	-	-
NMP12A	1	1.0	12.0	1,500	.495	-	.118	-	-	-	-	-
NMP3B	2	0.6	2.5	4,000	.240	.140	.118	.082	.014	-	-	-
NMP5B	2	0.6	4.5	3,000	.329	.140	.118	.130	.034	-	-	-
NMP8B	2	0.8	7.0	1,500	.495	.140	.118	.250	.036	-	-	-
NMP12B	2	1.0	12.0	1,500	.495	.140	.118	.250	.036	-	-	-
NMP3F	3	0.6	2.5	4,000	.240	.140	.118	.090	-	.110	.025	.04
NMP5F	3	0.6	4.5	3,000	.329	.140	.118	.160	-	.110	.025	.04
NMP8F	3	0.8	7.0	1,500	.495	.140	.118	.250	-	.110	.025	.04
NMP12F	3	1.0	12.0	1,500	.495	.140	.118	.250	-	.110	.025	.04
NMP3J	4	0.6	2.5	4,000	.240	.140	.118	.082	.014	.070	.160	-
NMP5J	4	0.6	4.5	3,000	.329	.140	.118	.130	.034	.070	.160	-
NMP8J	4	0.8	7.0	1,500	.495	.140	.118	.250	.036	.070	.160	-
NMP12J	4	1.0	12.0	1,500	.495	.140	.118	.250	.036	.070	.160	-
NMP3M	5	0.6	2.5	4,000	.240	-	.118	-	-	-	.125	-
NMP5M	5	0.6	4.5	3,000	.329	-	.118	-	-	-	.160	-
NMP8M	5	0.8	7.0	1,500	.495	-	.118	-	-	-	.230	-

NOTE: For diameter and length dimensions on figures 2-5, see figure 1.