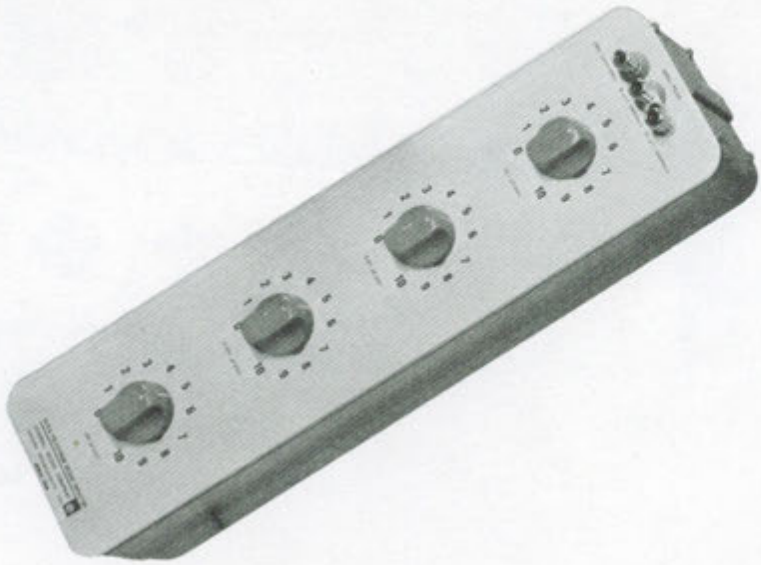

1419 Decade Capacitors

- **100 pF to 1.1 μF**
- **choice of models**
- **two- or three-terminal connection**

Type 1419 Decade Capacitors are offered in three models using two different dielectric materials to satisfy a variety of needs.

Types 1419-A and -B (Polystyrene) Capacitance and dissipation factor constant with frequency, essentially noninductive, very low dielectric absorption. The dielectric is specially prepared of purified high-molecular-weight polystyrene, having very high resistance and freedom from interfacial polarization. Moisture sealing with Teflon* feed-through insulators assures high performance under adverse humidity conditions.

Type 1419-K (Silvered Mica) Higher accuracy, low dissipation factor, and +35 ±10 ppm/°C temperature coefficient (10-50°C) for use in higher ambient temperatures.

* Registered trademark of E. I. duPont de Nemours and Company.

SPECIFICATIONS

Type Number	1419-A	1419-B	1419-K
Dielectric	Polystyrene	Polystyrene	Silvered Mica
Maximum Capacitance of Box (μF)	1.110	1.1110	1.110
In Steps of (μF)	0.001	0.0001	0.001
Dials	3	4	3
Zero Capacitance, typical			
2-terminal connection	37 pF	50 pF	41 pF
3-terminal connection	15 pF	20 pF	13 pF
Accuracy[1]			
2-terminal connection[2]	±1%	±(1% + 2 pF)	±0.5%
3-terminal connection	±1% except ±1.5% on smallest decade	±1% except +1% to −(2% + 4 pF) on smallest decade	±0.5% except ±1% on smallest decade
Dissipation Factor at 1 kHz	<0.0002		<0.0003
Insulation Resistance at 100 V, 25°C 50% RH, typical	$>10^{12}$ Ω		$>5 \times 10^{9}$ Ω
Max Voltage[3] (dc or peak)	500 V up to 35 kHz		500 V up to 10 kHz
Max Operating Temperature (C)	65°		75°
Voltage Recovery[4]	<0.1%		<3%
Resonant Frequencies (typical)	1 μF—400 kHz; 0.1 μF—1MHz; 0.01 μF—2.7 MHz; 0.001 μF—7.8 MHz; 0.0001 μF—23 MHz		
Dc Cap/1-kHz Cap	<1.001		Typically 1.03
Cabinet: Lab-bench Over-all Dimensions — in. (mm)	13 x 4.31 x 5 (330 x 110 x 127)	16.3 x 4.31 x 5 (415 x 110 x 127)	14.13 x 5.5 x 6 (359 x 140 x 153)
Net Weight — lb (kg)	8.38 (3.8)	10.5 (4.8)	11.25 (5.5)
Shipping Weight — lb (kg)	10 (4.6)	11 (5)	18 (8.5)
Catalog Number	**1419-9701**	**1419-9702**	**1419-9711**

[1] Capacitance increments from zero position are within this percentage of the indicated value for any setting at 1 kHz.
[2] Units are checked with switch mechanism high, electrically, and the common lead and case grounded.
[3] At frequencies above the indicated max, the allowable voltage decreases and is (approx) inversely proportional to frequency. These limits correspond to a temperature of 40°C at max setting of each decade in box.
[4] Final % of soaking voltage V measured after holding terminal voltage at V for 1 h, then discharging for 10 s through a resistance of V ohms.

National stock numbers are listed at the back of the catalog.