

1419 Series

The 1419 Series consists of either 3 decade or 4 decades covering capacitance range of 100 pF to 1.1 μ F.

The 1419 Decade Capacitors are offered in 3 different models.

The 1419-A and 1419-B utilize polystyrene capacitors with capacitance and dissipation factor that have minimal change with frequency.

The 1419-K features silvered mica capacitors and a higher accuracy of $\pm 0.5\%$. The 1419-K is ideal for use at a wide range of temperatures with a temperature coefficient of $+ 35 \pm 10$ (ppm/ $^{\circ}$ C) from 10 to 50 $^{\circ}$ C.

Features:

- Working decade capacitor for 2-terminal measurements
- Low dissipation factor < 0.0003
- Calibration of LCR meters and other instruments
- Calibration of multimeters
- 100 pF to 100 nF decade steps
- 0.5% capacitance accuracy for 2-terminal measurements



Model 1419-B Decade Capacitor

SPECIFICATIONS

Type Number	1419-A	1419-B	1419-K
Dielectric	Polystyrene	Polystyrene	Silvered Mica
Maximum Capacitance (μ F)	1.110	1.1110	1.110
Minimum Step Size (μ F)	0.001	0.0001	0.001
Decades	3	4	3
Accuracy 2-terminal Connection ^{1,2}	$\pm 1\%$	$\pm(1\% + 2 \text{ pF})$	$\pm 0.5\%$
Accuracy 3-terminal Connection ¹	$\pm 1\%$ except $\pm 1.5\%$ on smallest decade	$\pm 1\%$ except $+ 1\% - (2\% + 4 \text{ pF})$ on smallest decade	$\pm 0.5\%$ except $\pm 1\%$ on smallest decade
Dissipation Factor at 1 kHz	<0.0002		< 0.0003
Insulation Resistance at 100 V, 25 $^{\circ}$ C, 50% RH typical	> $10^{12} \Omega$		> $5 \times 10^9 \Omega$
Maximum Voltage (dc or peak) ³	500 V up to 35 kHz		500 V up to 10 kHz
Maximum Operating Temperature	65 $^{\circ}$ C		75 $^{\circ}$ C
Voltage Recovery ⁴	< 0.1%		<3%
Resonant Frequencies (typical)	1 μ F - 400 kHz; 0.1 μ F - 1 MHz; 0.01 μ F - 2.7 MHz; 0.001 μ F - 7.8 MHz; 0.0001 μ F - 23 MHz		
dc Capacitance / 1 kHz Capacitance	<1.001		typically 1.03
Mechanical Dimensions inches (mm)	13 x 4.31 x 5 (330 x 110 x 127)	16.3 x 4.31 x 5 (415 x 110 x 127)	14.12 x 5.5 x 6 (359 x 140 x 153)
Net Weight lbs (kg)	8.38 (3.8)	10.5 (4.8)	11.25 (5.5)
Shipping Weight lbs (kg)	10 (4.6)	11 (5)	11.25 (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 maximum, the allowable voltage decreases and is approximately inversely proportional to frequency. These limits correspond to a temperature of 40 $^{\circ}$ C at maximum setting of each decade in box.

⁴ Final % of soaking voltage V measured after holding terminal voltage at V for 1 hour, then discharging for 10 seconds through a resistance of V Ω .

