Type 1401 STANDARD AIR CAPACITOR (Two-Terminal)

FEATURES:

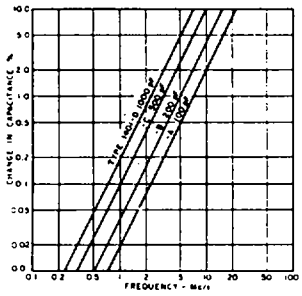
- High accuracy and stability.
- Low losses.
- Low temperature coefficient.
- Convenient size.

USES: The TYPE 1401 Standard Air Capacitors are accurate and stable two-terminal capacitors for laboratory use as reference or working standards. They supplement the TYPE 1409 series of fixed mica capacitors by providing standards of lower loss and lower capacitance.

DESCRIPTION: The aluminum plate assemblies are supported by a mounting plate attached to an aluminum casting. This casting, together with the cylindrical aluminum case, provides a dust-free enclosure and a complete shield. The low, or ground, terminal of the capacitor is connected to this shield. Three supporting rods are used for each of the plate assemblies, ensuring a high degree of rigidity and stability, and all plates, rods, and spacers are aluminum, to minimize thermal stresses. Terminals are insulated by polystyrene bushings and spaced to plug directly into General Radio binding posts, such as the UNKNOWN terminals of the TYPE 716-C Capacitance Bridge.

SPECIFICATIONS

Calibration: A certificate of calibration is supplied with each unit, giving the measured capacitance at 1 kc/s and at a specified temperature. The measured capacitance is the capacitance added when the standard is plugged directly into General Radio binding posts. This value is obtained by comparison, to a precision better than ±0.01%, with working standards whose absolute values are known to an accuracy typically ±0.01%, determined and maintained in terms of reference standards periodically certified by the National Bureau of Standards.



Change (percent) in effective terminal capacitance, with frequency, produced by residual inductance.

Stability: Capacitance change is less than 0.05% per year.

Residual Impedances: The series inductance of all units is approximately 0.05 μH. See plot.

The metallic resistance of all units is approximately 0.027 Ω at 1 Mc/s. The series resistance varies as the square root of frequency above about 100 kc/s.

Temperature Coefficient of Capacitance: Typically 10 to 20 ppm/°C between 20° and 70°C.

Terminals: TYPE 274 Plugs, spaced ¾ inch on centers, to plug into TYPE 938 Binding Posts.

Mounting: Aluminum panel and cylindrical case.

Dimensions: Dia 3 1/16 in (78 mm), height 4⅞ in (125 mm), over-all.

Net Weight: 1⅜ lb (0.6 kg). **Shipping Weight:** 4 lb (1.9 kg).

Catalog No.		*Insertion Capacitance*	*Initial Accuracy*	*Peak Volts*	*Dissipation Factor*	*Price*
1401-9701	**Type 1401-A**	100 pF	0.2%	1500	100×10^{-6}	**$50.00**
1401-9702	**Type 1401-B**	200 pF	0.15%	1200	50×10^{-6}	**54.00**
1401-9703	**Type 1401-C**	500 pF	0.12%	900	20×10^{-6}	**57.00**
1401-9704	**Type 1401-D**	1000 pF	0.1%	700	10×10^{-6}	**65.00**

Type 1429-A FUEL-GAGE TESTER

The TYPE 1429-A Fuel-Gage Tester is an adjustable standard capacitor for testing and calibrating modern capacitance-type fuel-gage systems in both reciprocating-engine and jet-engine planes.

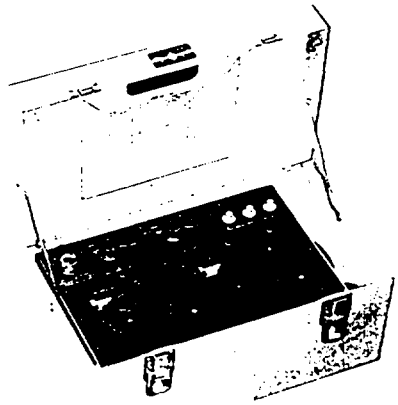
Catalog No.	*Description*	*Price*
1429-9701	**Type 1429-A Fuel-Gage Tester**	**$975.00**

DESCRIPTION: This tester fulfills the same function as the military MD-1 Tester but has smaller dimensions and lower weight. External connections are made through keyed coaxial connectors. Cables and adaptors as required by specification MIL-T-8579 (USAF) are supplied.

All capacitors and a renewable desiccant cartridge are mounted on an aluminum panel and enclosed in a moisture-sealed aluminum cabinet. The latter is shock-mounted in an aluminum transit case with a compartment to hold nine connecting cables and three tee adaptors.

Dimensions: Width 17½, height 10½, depth 10½ in (445, 270, 270 mm), over-all.

Net Weight: 29 lb (13.5 kg). **Shipping Weight:** 34 lb (15.5 kg).



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