



ITS JOB: to detect and measure

INFINITESIMAL CURRENTS

New GL-5674 6-Electrode Electrometer Tube



DEPENDABLE DOWN TO 5×10^{-16} AMPERES!

ELECTRICAL CHARACTERISTICS

Filament voltage	3.8 v
Filament current	0.090 amp
Input capacitance	6.8 mmfd

Max Ratings, Absolute Values

Anode voltage	10 v
Anode current, per anode	100 mu a
Space-charge-grid voltage	6 v

Typical Operating Conditions

Anode voltage	6 v
Anode current, per anode	20 mu a
Space-charge-grid voltage	5 v
Control-grid voltage	-3.5 v
Balance-grid voltage	-3.5 v
Control-grid current	5×10^{-15} amp

NOTE: When a 1011 ohm grid resistor and a 10-10 ampere-per-millimeter galvanometer are used, sensitivity of approximately 75,000 millimeters per volt is obtainable.

● Presentday research—in nuclear physics, in medicine, in industry—calls for precisely this tube. General Electric has originated Type GL-5674 to meet the demand for an electrometer plotron which combines *great sensitivity with stable operation.*

● Stability is vital in view of the many extraneous influences that affect readings of extremely small currents—such factors as fluctuations in tube-filament emission due to the smallness of the electron flow, variations in battery voltage, temperature changes, and external impulses from nearby electrical fields.

● Type GL-5674, properly applied, offsets these influences by using two control grids and two anodes (operating with a

common filament and space-charge grid), connected in a Wheatstone-bridge circuit. Variations in emission, and other sporadic or continuous causes of instability, thus are balanced out. In consequence, G.E.'s new plotron will measure accurately down to 5×10^{-16} amperes. This is such an extremely small current that the noise level of the grid resistor becomes a limiting factor.

● Complete information about this great new plotron gladly will be supplied to scientists and engineers interested in its application to radiation detection, delicate photoelectric measurements, or other fields. Write to *General Electric Company, Electronics Department, Schenectady 5, N. Y.*

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