



ENGINEERING BULLETIN

ELECTRONIC COMPONENTS

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N.U. MAGNETIC PICK-UP TUBE TYPE 6462

DESCRIPTION

The new National Union Pick-up Tube, formerly Type R-2211, is a miniature cathode-ray tube in a T-5½ bulb with a 7-pin miniature stem. The tube consists of a miniature electron gun, magnetic pole pieces, electrostatic deflection plates, and beam collectors. With no magnetic signal the beam is adjusted, by means of the electrostatic deflection plates, so that the beam equally divides between the two collector plates. A change in the magnetic field (input signal) between the pole pieces, results in a deflection of the electron beam, with a corresponding change in the relative division of the beam between the two plates. When the plates are connected to suitable load resistors, a push-pull output signal voltage is developed between the plate terminals. The output of the tube depends upon the flux density in the pole pieces. Magnetic field measurements down to 1 gamma have been obtained with this new device.

ELECTRICAL DATA

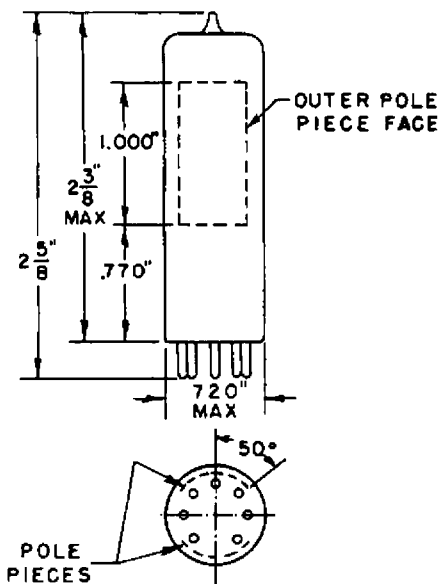
MAXIMUM TUBE RATINGS	TYPICAL TUBE OPERATING CONDITIONS
Heater Voltage (ac/dc)..... 6.3 volts ±10%	Heater Voltage..... 6.3 volts (ac/dc)
Cathode Current..... 2.5 ma.	Heater Current..... 175 ma.
Grid Nos. 2 & 4, Pole pieces, and D1 300 volts	Cathode Current..... 1.5 ma.
Plate No. 1 and Plate No. 2 400 volts	Grid Nos. 2 & 4, Pole pieces, and D1 200 volts
Deflection Voltage..... ±25 volts	Grid No. 3 (focusing electrode)..... 14 volts
Load Resistance..... (per Plate) 0.5 megohm	Voltage between D1 and D2..... variable
	Plate Voltages..... 280 volts
	Plate Current (both elements)..... 400 μa.
	Load Resistance/Plate..... 0.1 megohms
	Plate Resistance (plate to Plate)... 2.6 megohms

TUBE MECHANICAL DATA

STYLE..... Miniature
 BULB..... T-5½
 BASE..... 7-pin button
 MOUNTING POSITION..... Any

BASE PIN CONNECTIONS

PIN 1..... Plate No. 1 (P1)
 PIN 2..... Grid No. 3 (G3), focusing electrode
 PIN 3..... Heater (H), Grid No. 1 (G1),
 Cathode (K), Repeller (R)
 PIN 4..... Heater (H)
 PIN 5..... Deflection Plate (D2)
 PIN 6..... Grid Nos. 2 and 4 (G2, G4), Pole Pieces (PP),
 Deflection Plate (D1)
 PIN 7..... Plate No. 2 (P2)



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