

TYPE 12VP4A

CATHODE-RAY TUBE

The Type 12VP4A is a twelve inch magnetic-focus and magnetic-deflection direct-view picture tube for television applications. The face plate is tinted neutral gray. This type has an external conductive coating, and it has an electron gun of triode construction to be used with an external ion-trap magnet.

GENERAL DATA

ELECTRICAL

Heater Voltage	6.3 volts
Heater Current	0.6 $\pm$ 10% amps
Focusing Method	magnetic
Deflecting Method	magnetic
Deflecting Angle (approx.)	55 degrees
Phosphor	P4
Fluorescence	white
Persistence	medium
Face Transmittance ⁽¹⁾	66%
Capacitance	
External Conductive Coating to Anode	
Maximum	3,000 μ f
Minimum	750 μ f

MECHANICAL

Overall Length	18 $\pm$ 3/8 inches
Greatest Diameter of Bulb	12 7/16 $\pm$ 1/16 - 1/8 inches
Minimum Useful Screen Diameter	11 inches
Bulb Contact	J1-21, Recessed Small Cavity Cap
Base	B5-57, Small Shell Duodecal 5-Pin
Basing	12G
Bulb Contact Alignment	
with Pin Position #3 (vacant)	$\pm$ 10 degrees

MAXIMUM RATINGS -- Design Center Values

Anode Voltage (dc)	12,000 volts
Grid Voltage	
Negative-Bias (dc)	125 volts
Positive-Bias (dc)	0 volts
Positive Peak	2 volts
Peak Heater-Cathode Voltage ⁽²⁾	$\pm$ 125 volts

(1) With a 7000° K all-sulphide P4 screen as the light source.

(2) A peak heater-cathode voltage of - 410 volts maximum may be applied for not more than 15 seconds during equipment warm-up periods.

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TYPICAL OPERATING CONDITIONS

Anode Voltage (dc) 11,000 volts
 Grid Voltage for Cut-Off (dc) -33 to -77 volts

MAXIMUM CIRCUIT VALUES

Grid #1 Circuit Resistance 1.5 megohms

