



CHARACTERISTICS

GENERAL DATA

Focusing Method . . . . .	Electrostatic
Deflecting Method . . . . .	Electrostatic
Phosphor* . . . . .	P7
Fluorescence . . . . .	Blue-White
Phosphorescence . . . . .	Yellow
Persistence . . . . .	Long
Faceplate . . . . .	Gray Filter Glass
Transmittance (Approx.) . . . . .	76 Percent

\*In addition to the P7 screen shown, the 16AMP7 can be supplied with several other screen phosphors.

ELECTRICAL DATA

Heater Voltage . . . . .	6.3 Volts
Heater Current . . . . .	0.6 ± 10 % Amperes
Direct Interelectrode Capacitances (Approx.)	
Cathode to All Other Electrodes . . . . .	7 μmf
Grid No. 1 to All Other Electrodes . . . . .	8 μmf
Between Deflecting Plates 1-2 . . . . .	4 μmf
Between Deflecting Plates 3-4 . . . . .	3 μmf
Deflecting Plate 1 to All Other Electrodes . . . . .	12.5 μmf
Deflecting Plate 2 to All Other Electrodes . . . . .	12.5 μmf
Deflecting Plate 3 to All Other Electrodes . . . . .	8.5 μmf
Deflecting Plate 4 to All Other Electrodes . . . . .	8.5 μmf

MECHANICAL DATA

Minimum Useful Screen Diameter . . . . .	15 Inches
Bulb Contact (Recessed Small Cavity Cap) . . . . .	J1-21
Neck Contacts (Small Ball) . . . . .	J1-25
Bulb . . . . .	C129 Exp. 14 or Equiv.
Base (Medium Shell Diheptal 12-Pin) . . . . .	B12-37
Basing . . . . .	14Q
Weight (Approx.) . . . . .	20 Pounds
J1-21 Contact Aligns with Trace D3-D4 . . . . .	±10 Degrees
J1-21 Contact Aligns with Pin No. 11 . . . . .	
J1-25 Contact (A2) Aligns with D1-D2 Trace . . . . .	±2 ½ Degrees
D3-D4 Trace Aligns with Pin No. 11 . . . . .	±10 Degrees
Positive Voltage on D1 Deflects Beam Approx. Toward Pin No. 8 . . . . .	
Positive Voltage on D3 Deflects Beam Approx. Toward Pin No. 4 . . . . .	
Angle Between D1-D2 and D3-D4 Traces . . . . .	90 ± 1 Degrees

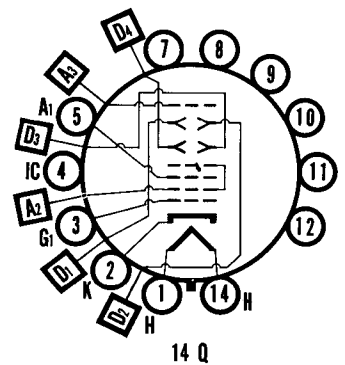
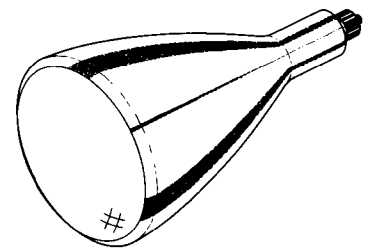
RATINGS

MAXIMUM RATINGS (Absolute Maximum Ratings)

Anode Input <sup>1</sup> . . . . .	6 Watts	
Anode No. 3 (Post Accelerator) Voltage . . . . .	17,600 Volts	dc
Anode No. 2 Voltage . . . . .	8800 Volts	dc
Anode No. 1 (Focusing Electrode) Voltage . . . . .	3300 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value . . . . .	330 Volts	dc
Positive Bias Value . . . . .	0 Volts	dc
Positive Peak Value . . . . .	2 Volts	
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode . . . . .	200 Volts	
Heater Positive with Respect to Cathode . . . . .	200 Volts	
Peak Voltage Between Anode No. 2 and Any Deflecting Plate . . . . .	1650 Volts	
Ratio Post Accelerator Voltage to Anode Voltage . . . . .	2:1	

QUICK REFERENCE DATA

Oscilloscope Tube  
 16" Direct Viewed  
 Round Glass Type  
 Electrostatic Deflection  
 Electrostatic Focus  
 Post Deflection Acceleration  
 Aluminized Screen



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Electronic Components Group  
 ELECTRONIC TUBE DIVISION  
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File Under

SPECIAL AND GENERAL PURPOSE CATHODE RAY TUBES

**TYPICAL OPERATING CONDITIONS**

Anode No. 3 (Post Accelerator) Voltage	12,000 Volts	dc
Anode No. 2 Voltage	7500 Volts	dc
Anode No. 1 Voltage for Focus	1760 - 2670 Volts	dc
Grid No. 1 Voltage Required for Cutoff <sup>2</sup>	-160 to -240 Volts	dc
Deflection Factors <sup>3</sup>		
Deflecting Plates 1-2	96 to 150 Volts	dc/Inch
Deflecting Plates 3-4	96 to 150 Volts	dc/Inch
Modulation <sup>4</sup>	37 Volts	Max.
Line Width "A" <sup>4</sup>	.5 mm	
Focus Electrode Current <sup>4</sup>	-25 to +25 $\mu$ a	dc
Spot Position, Undelected	Within 20 mm	Square

**CIRCUIT VALUES**

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
Resistance in Any Deflection Plate Circuit	5.0 Megohms Max.

**NOTES:**

1. Anode input equals the product of Anode No. 2 voltage and average Anode No. 2 current.
2. For visual extinction of undeflected focused spot.
3. Deflection Plates 1 and 2 are nearer the screen.
4. Measured in accordance with MIL-E-1 specification at a post accelerator current ( $I_{a3}$ ) equal to 25  $\mu$ a.

**X-RAY WARNING:**

*X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's maximum anode voltage or 16,000 volts, whichever is less.*

