

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflecting Method	Electrostatic
Types* Fluorescence Phosphorescence Persistence	
3KP1 Green ——— Medium	
3KP4 White ——— Short to Medium	
3KP7 Blue-White Yellow Long	
3KP11 Blue ——— Short	
3KP16 Violet & Near Ultraviolet ——— Extremely Short	

Faceplate Clear, Spherical

*In addition to the types shown, the 3KP- can be supplied with several other screen phosphors.

ELECTRICAL DATA

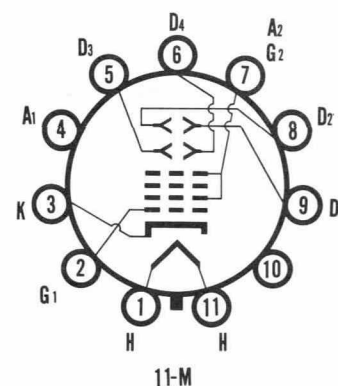
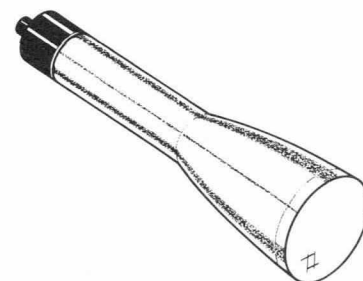
Heater Voltage	6.3 Volts
Heater Current	$0.6 \pm 10\%$ Ampere
Direct Interelectrode Capacitances (Approx.)	
Grid No. 1 to All Other Electrodes	8 μf
Between Deflecting Plates 1-2	2.5 μf
Between Deflecting Plates 3-4	2.5 μf
Deflecting Plate 1 to All Other Electrodes	11 μf
Deflecting Plate 2 to All Other Electrodes	8 μf
Deflecting Plate 3 to All Other Electrodes	7 μf
Deflecting Plate 4 to All Other Electrodes	8 μf

MECHANICAL DATA

Minimum Useful Screen Diameter	$2\frac{3}{4}$ Inches
Bulb	J24N
Base (Medium Shell Magnal 11-Pin)	B11-66
Basing	11M
Base Alignment	
D3-D4 Trace Aligns with Pin No. 1 and Tube Axis	± 10 Degrees
Positive Voltage on D1 Deflects Beam Approx. Toward Pin No. 4	
Positive Voltage on D3 Deflects Beam Approx. Toward Pin No. 1	
Angle Between D1-D2 and D3-D4 Traces	90 ± 3 Degrees
Weight (Approx.)	$\frac{3}{4}$ Pound

QUICK REFERENCE DATA

3" Direct Viewed
Round Glass Type
Clear, Spherical Faceplate
Electrostatic Deflection
Electrostatic Focus



SYLVANIA ELECTRONIC TUBES

A Division of
Sylvania Electric Products Inc.

PICTURE TUBE OPERATIONS
SENECA FALLS, NEW YORK

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

MARCH, 1960

PAGE 1 OF 3

File Under
SPECIAL AND GENERAL PURPOSE
CATHODE RAY TUBES

RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode No. 2 Voltage ¹	2750 Volts dc
Anode No. 1 Voltage (Focusing Electrode)	1100 Volts dc
Grid No. 1 Voltage	
Negative Bias Value	220 Volts dc
Positive Bias Value	0 Volts dc
Positive Peak Value	2 Volts
Peak Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	140 Volts
Heater Positive with Respect to Cathode	140 Volts
Peak Voltage Between Anode No. 2 and Any Deflecting Plate	550 Volts

TYPICAL OPERATING CONDITIONS

Anode No. 2 Voltage ²	2000 Volts dc
Anode No. 1 Voltage for Focus	320 to 600 Volts dc
Grid No. 1 Voltage Required for Cutoff ³	-38 to -90 Volts dc
Deflection Factor	
Deflecting Plates 1-2 ⁴	100 to 136 Volts dc/Inch
Deflecting Plates 3-4 ⁵	76 to 104 Volts dc/Inch
Spot Position (Focused, Undelected) ⁶	Within a Circle of 7.5 mm Radius concentric with the center of the face

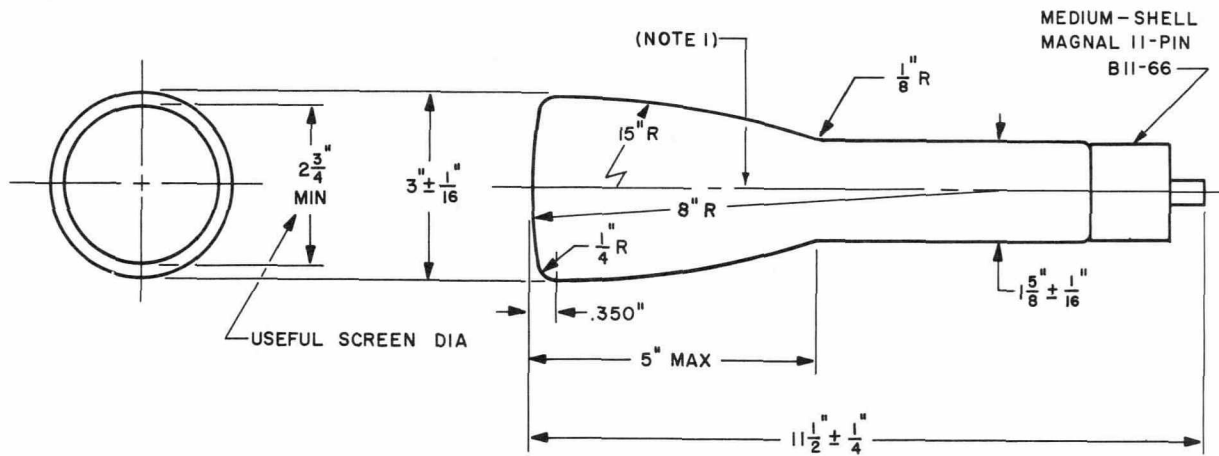
CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
Resistance in any Deflecting Electrode Circuit ⁷	5.0 Megohms Max.

NOTES:

1. Anode No. 2 power input should be limited to 6 watts.
2. Brilliance and definition decrease with decreasing Anode No. 2 Voltage. Recommended minimum for Type 3KP1 is 1000 volts. Recommended minimum for Types 3KP4, 3KP7, 3KP11 and 3KP16 is 1500 volts.
3. Visual extinction of undeflected focused spot.
4. Deflecting Plates D1-D2 are nearer the screen.
5. Deflecting Plates D3-D4 are nearer the base.
6. With tube shielded and all deflection plates connected to Anode No. 2.
7. It is recommended that deflecting electrode circuit resistances be approximately equal.

OUTLINE



S 58060

DIAGRAM NOTE:

1. Centerline of bulb will not deviate more than ± 2 degrees in any direction from perpendicular erected at center of bottom of base.