

DESCRIPTION

Sylvania 5CVP- is a compact, rectangular, direct view cathode-ray tube designed primarily for use in airborne equipment. It features a high quality, nearly flat pressed faceplate, a high resolution electrostatic focus gun, 54 degree magnetic deflection, and neck diameter of .840 inches. Its encapsulated leads permit operation at high altitude, and it will withstand a wide range of temperatures.

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Magnetic
Deflection Angles (Approx.)	
Horizontal	52 Degrees
Vertical	27 Degrees
Diagonal	54 Degrees

Phosphor Types*	Fluorescence	Phosphorescence	Persistence
P1	Green	—	Medium
P7	Blue - White	Yellow	Long
P19	Orange	Orange	Very Long
Faceplate	Spherical, Clear, Pressed Glass		

* In addition to the types shown, the 5CVP- can be supplied with several other screen phosphors.

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	$0.3 \pm 10\%$ Amperes
Direct Interelectrode Capacitances (approx.)	
Grid No. 1 to All	12.0 $\mu\mu\text{f}$
Cathode to All	9.5 $\mu\mu\text{f}$

MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)	
Horizontal	4 Inches
Vertical	2 Inches
Diagonal	4 $\frac{1}{8}$ Inches
Area	7.4 Sq. Inches
Bulb	C39 Exp. 3 or equivalent
Bulb Contact	Special Molded Lead
Base	Special Encapsulated Base with Color Coded Leads
Weight (Approx.)	1 $\frac{1}{4}$ Pounds

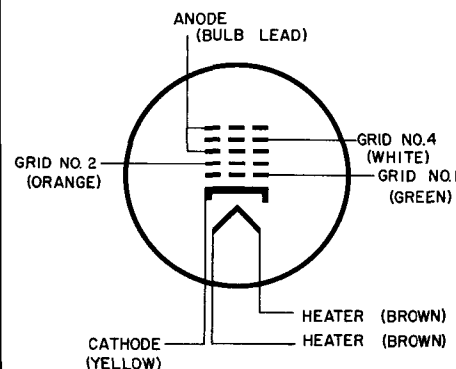
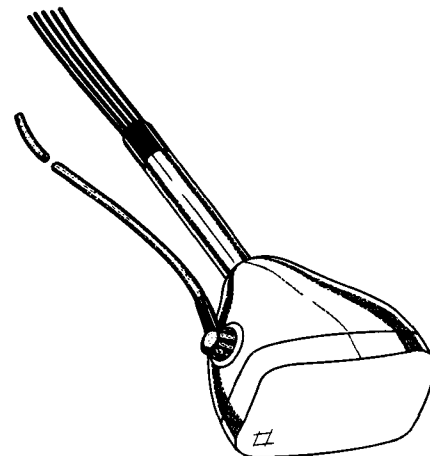
RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage	4500 Volts	dc
Anode Input	6 Watts	
Grid No. 4 Voltage (Focusing Electrode)	-500 to +1100 Volts	dc
Grid No. 2 Voltage	550 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value	165 Volts	dc
Positive Bias Value	0 Volts	dc
Positive Peak Value	2 Volts	
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode	180 Volts	
Heater Positive with Respect to Cathode	180 Volts	
Altitude	70,000 Feet	
Operating Temperature Range	-65 to +85 °C	

QUICK REFERENCE DATA

Indicator Tube
 2 $\frac{3}{4}$ x 4 $\frac{3}{4}$ Direct Viewed
 Rectangular Glass Type
 Magnetic Deflection
 Electrostatic Focus
 Encapsulated Leads
 .840 O.D. Neck Diameter



SYLVANIA ELECTRONIC TUBES

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PAGE 1 OF 2

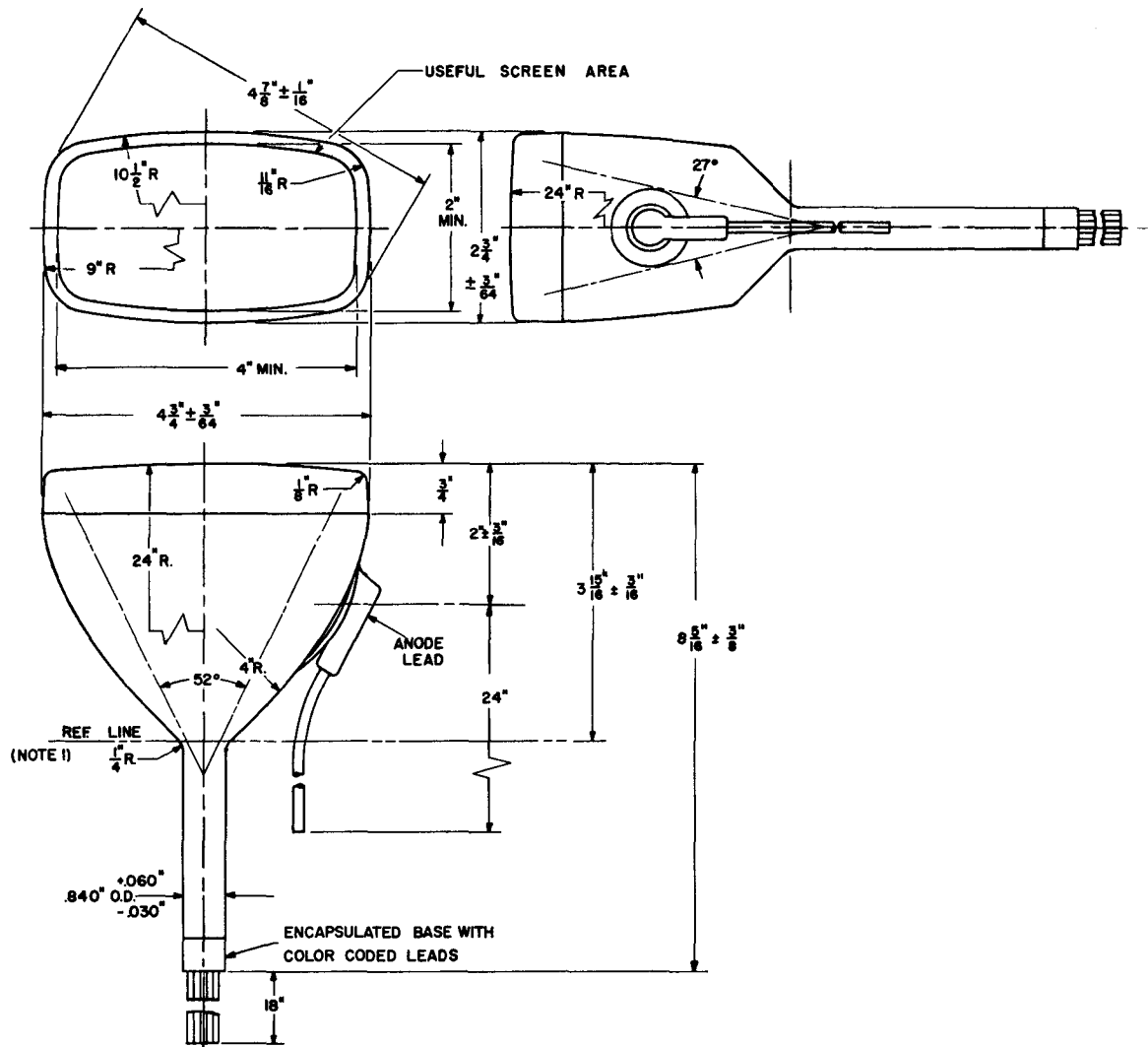
File Under
 SPECIAL AND GENERAL PURPOSE
 CATHODE RAY TUBES

TYPICAL OPERATING CONDITIONS

Anode Voltage	4000 Volts dc
Grid No. 4 Voltage (Focusing Electrode) ¹	0 to +120 Volts dc
Grid No. 2 Voltage	300 Volts dc
Grid No. 1 Voltage ²	-15 to -45 Volts dc
Modulation ³	15 Volts dc Max.
Line Width ³	.006 Inches Max.

NOTES:

1. The horizontal deflection current is a triangular wave form of $\frac{1}{4}$ cps at an amplitude sufficient to scan $3\frac{3}{4}$ inches. The vertical deflection current is a saw tooth of $\frac{1}{120}$ cps at an amplitude sufficient to scan $1\frac{1}{8}$ inches. The control grid voltage is adjusted to produce a spot barely visible to dim lighting conditions. The beam is periodically unblanked to zero bias for a period of 500 μ secs at a repetition rate of 200 - 1000 pps. The focus electrode voltage for best focus under these pulsed conditions shall be as specified.
2. Visual extinction of undeflected focused spot.
3. Measured at a beam current of 10 μ a, and in accordance with MIL-E-1 specifications.



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OUTLINE NOTE:

1. Reference line is determined by the plane where a gauge 1.000 $\pm .003$ I.D. and 2" long will seat against the bulb body.