PHYSICAL DETAILS

Bulb Diameter: 10 1/2" ± 1/8"
Picture Size: 6" x 8" approximately
Deflection Angle: 50°
Overall Length: 16 5/8" ± 3/8"
Bulb Anode Terminal: Recessed Small Ball Cap
Base: Small Shell Duodecal, 7 Pin No. 4 (White)
Screen Phosphor: Magnetic
Operation Features:
  - Deflection Method: Magnetic
  - Focussing Method: Conductive
Capacitances:
  - Grid #1 to all other Electrodes: 9 uuf Max., 3 uuf Min.
  - Cathode to all other Electrodes: 8 uuf Max., 2 uuf Min.
  - External Conductive Coating to Anode: 500 uuf Max.

ELECTRICAL RATINGS (Design Maximum Values)

Anode (Beam Collecting Electrode) Note 1: 11,000 volts DC Max.
Grid #2 (Accelerating Electrode): 450 volts DC Max.
Grid #1 (Control Electrode): ±2 volts DC Max.
Heater Cathode Bias: -100 volts DC Max.
Grid #1 Circuit Resistance: ±125 volts Max.
1.5 Megohms Max.

TYPICAL OPERATIONS

Heater Voltage: 6.3 ± 10% volts
Heater Current: .6 amps.
Anode Voltage: 8000 volts
Grid #2 Note 2: 250 volts
Grid #1 Voltage for Visual Cutoff: -55 ± 40% volts
Light Output: See Curve A
Anode Current: See Curve B
Capacitances:
  - Grid #1 to all Other Electrodes: 7 uuf
  - Cathode to all Other Electrodes: 5 uuf

Note 1  Brilliance and definition of the picture decreases with decreasing Anode potentials and it is suggested that the value be not less than 7000 volts.

Note 2  If it is desired to operate all tubes at a fixed cutoff value of -55 volts, Eg2 should be adjusted to 250V ± 40%.
Note Pins 3, 4, 5, 8, 9 are removed from base shell.

Anode Contact
Recessed Small Ball, Cap

Bottom View of Base

Pin No. | Description | Max. Voltage Ratings
--- | --- | ---
1 | Heater | 6.3 Volts \( \pm 10\% \)
2 | Grid #1 | \(-100 \text{ to } +2 \text{ volts}\)
6, 7 | Not Connected | 450 Volts Max.
10 | Grid #2 | All element voltages with respect to cathode
11 | Cathode | 6.3 Volts \( \pm 10\% \)
5, 12 | Heater | 11,000 Volts

Side Seal Ball-Cap High Voltage Electrode

TYPICAL OPERATING CONDITIONS

- Anode Voltage: 8000 Volts
- Grid #2 Voltage: 250 Volts
- Grid #1 Voltage: \(-55 \text{ Volts } \pm 10\% \)
- Grid #2 Current: \(\mp 15 \text{ uA DC}\)
- Anode Current for highlight brightness: 150 uA
**TUBE 10CP4**

**Eg2 = 250 VOLTS D.C.**

**SCREEN BRILLIANCE IN FT. CANDLES**

**CONTROL GRID VOLTS**

**CURVE A**

**Eg2 = 250 VOLTS D.C.**

**SCREEN BRILLIANCE IN FT. CANDLES**

**In CURRENT in UA**

**CURVE B**