PAN-O-PLY — INTEGRAL IMPOSION PROTECTION
(Provided by Formed Rim and Welded Tension Bands Around Periphery of Tube Panel — No Separate Safety-Glass or Integral Protective Window Required)

LOW-VOLTAGE ELECTROSTATIC FOCUS 1140 MAGNETIC DEFLECTION

NO ION-TRAP MAGNET REQUIRED

Low-Grid-No.2-Voltage — for Cathode-Drive Operation

ELECTRICAL

Direct Interelectrode Capacitances
Cathode to all other electrodes .... 5 pF
Grid No.1 to all other electrodes .... 6 pF
External conductive coating to anode* (1750 max pF)
(1250 min pF)

Heater Current at 6.3 volts ........... 600 ± 30 mA
Heater Warm-Up Time (Average) ....... 11 s
Electron Gun ........ Type Requiring No Ion-Trap Magnet

OPTICAL
Phosphor .................. P4—Sulfide Type, Aluminized
(For Curves, see front of this section)
Faceplate ................ Filterglass
Light Transmission (Approx.) ........ 48% ←

MECHANICAL
Weight (Approx.) .................. 15.5 lbs ←
Overall Length ................... 11.625 ± 0.250 in
Neck Length ..................... 4.375 ± 0.125 in
Projected Area of Screen ........... 172 sq in

External Conductive Coating* Type. ........ Regular-Band
Contact area for grounding ........ Near Reference Line
For Additional Information on Coatings and Dimensions
See Picture-Tube Dimensional-Outlines and Bulb J149 F sheets
at front of this section

Cap .................. Recessed Small Cavity (JEDEC No.J1-21)
Base .................. Small-Button Neoeightar 7-Pin,
Arrangement I, (JEDEC No.B7-208)
Basing Designation for BOTTOM VIEW ....... 8HR

Pin 1 — Heater
Pin 2 — Grid No.1
Pin 3 — Grid No.2
Pin 4 — Grid No.4
Pin 6 — Grid No.1
Pin 7 — Cathode
Pin 8 — Heater
Cap — Anode (Grid No.3, Grid No.5, Screen, Collector)
C — External Conductive Coating

← Indicates a change.
MAXIMUM AND MINIMUM RATINGS, DESIGN-MAXIMUM VALUES

Unless otherwise specified, voltage values are positive with respect to grid No. 1

Anode Voltage ........................................... 20000 max V
....................................................... 10000 min V

Grid-No.4 (Focusing) Voltage
Positive value ........................................... 1250 max V
Negative value .......................................... 400 max V

Grid-No.2 Voltage ........................................... 70 max V
....................................................... 40 min V

Cathode Voltage
Negative peak value ...................................... 2 max V
Negative bias value ...................................... 0 max V
Positive bias value ...................................... 100 max V
Positive peak value ...................................... 150 max V

Heater Voltage ........................................... 6.9 max V
....................................................... 5.7 min V

Peak Heater-Cathode Voltage
Heater negative with respect to cathode:
  During equipment warm-up period
  not exceeding 15 seconds ...................................... 450 max V
  After equipment warm-up period ........................................... 300 max V
  Heater positive with respect to cathode:
  Combined AC and DC voltage ...................................... 200 max V
  DC component ........................................... 100 max V

TYPICAL OPERATING CONDITIONS FOR CATHODE-DRIVE SERVICE

Unless otherwise specified, voltage values are positive with respect to grid No. 1

Anode Voltage ........................................... 16000 V
Grid-No.4 Voltage ...................................... 100 V
Grid-No.2 Voltage ...................................... 50 V
Cathode Voltage for visual extinction
  of focused raster ...................................... 32 to 50 V
Field Strength of required adjustable centering magnet ...................................... 0 to 8 G

MAXIMUM CIRCUIT VALUE

Grid-No.1 Circuit Resistance ...................................... 1.5 max MΩ

a External conductive coating and implosion protection hardware must be grounded.
b The grid-No.4 voltage required for optimum focus of any individual tube will have a value anywhere between -100 and +300 volts with the combined grid-No.1 voltage and video-signal voltage adjusted to give an anode current of 100 microamperes on a 10-1/2-inch by 14-inch pattern from an RCA-2P21 monoscope, or equivalent.

For X-radiation shielding considerations, see sheet X-RADIATION PRECAUTIONS FOR CATHODE-RAY TUBES at front of this section