

19ENP4A

Picture Tube

PAN-O-PLY—INTEGRAL IMPLOSION PROTECTION
LOW-VOLTAGE ELECTROSTATIC FOCUS 114° MAGNETIC DEFLECTION
LOW-GRID-No.2 VOLTAGE CATHODE-DRIVE TYPE

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 ^a	1500 max 1000 min	pF
		pF
Heater Current at 6.3 V.	450 ± 20	mA
Heater Warm-Up Time (Average).	11	s
Electron Gun	Type Requiring No Ion-Trap Magnet	

OPTICAL

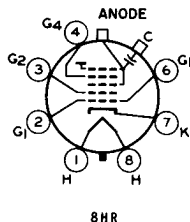
Phosphor	P4—Sulfide Type, Aluminized
For curves, see front of this section	
Faceplate.	Filterglass
Light transmission at center (approx.)	48%

MECHANICAL

Weight (Approx.)	15 lb
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	Modified-Band
Contact area for grounding	Near Reference Line
For Additional Information on Coatings and Dimensions	
See <i>Picture-Tube Dimensional-Outlines and Bulb J149 F</i> sheets at front of this section	
Cap.	Recessed Small Cavity (JEDEC No. J1-21)
Base	Small-Button Neoeightar 7-Pin, Arrangement 1, (JEDEC No. B7-208)

TERMINAL DIAGRAM (Bottom View)

- 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



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MAXIMUM AND MINIMUM RATINGS, DESIGN-MAXIMUM VALUES

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

Anode Voltage	{ 21000 max V 12000 min V
Grid-No.4 (Focusing) Voltage	
Positive value	1250 max V
Negative value	400 max V
Grid-No.2 Voltage.	{ 60 max V 25 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.	250 V
Grid-No.2 Voltage.	50 V
Cathode Voltage.	32 to 50 V
For visual extinction of focused raster	

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	1.5 max MΩ
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- ^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 0 to + 400 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-2F21 monoscope, or equivalent.

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

