

# 16ANP4

## Picture Tube

RECTANGULAR GLASS TYPE WITH INTEGRAL PROTECTIVE WINDOW  
 LOW-VOLTAGE ELECTROSTATIC FOCUS 114° MAGNETIC DEFLECTION  
 NO ION-TRAP MAGNET REQUIRED ALUMINIZED SCREEN

### 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. . .  | { 1200 max.                       | pf      |
|                                            | { 800 min.                        | pf      |
| Heater Current at 6.3 volts. . . . .       | 600 ± 30                          | ma      |
| Heater Warm-Up Time (Average). . . . .     | 11                                | seconds |
| Electron Gun . . . . .                     | Type Requiring No Ion-Trap Magnet |         |

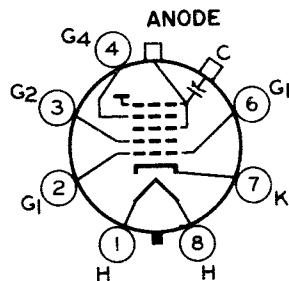
### Optical:

|                                                        |                                |
|--------------------------------------------------------|--------------------------------|
| Phosphor (For curves, see front of this Section) . . . | P4—Sulfide Type,<br>Aluminized |
| Faceplate and Protective Window. . . . .               | Filterglass                    |
| Light transmission (Approx.) . . . . .                 | 60%                            |

### Mechanical:

|                                                                                                 |                                                                     |
|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Weight (Approx.) . . . . .                                                                      | 9.5 lbs                                                             |
| Overall Length . . . . .                                                                        | 10.438" ± 0.312"                                                    |
| Neck Length. . . . .                                                                            | 4.125" ± 0.125"                                                     |
| Projected Area of Screen . . . . .                                                              | 125 sq. in.                                                         |
| External Conductive Coating:                                                                    |                                                                     |
| Type . . . . .                                                                                  | Regular-Band                                                        |
| Contact area for grounding . . . . .                                                            | Near Reference Line                                                 |
| For Additional Information on Coatings and Dimensions:                                          |                                                                     |
| See <i>Picture-Tube Dimensional-Outlines and Bulb J125 A</i> sheets<br>at front of this section |                                                                     |
| Cap. . . . .                                                                                    | Recessed Small Cavity (JEDEC No. J1-21)                             |
| Base . . . . .                                                                                  | Small-Button Neoeightar 7-Pin, Arrangement 1,<br>(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



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**Maximum and Minimum Ratings, Design-Maximum Values:**

*Unless otherwise specified, voltage values  
are positive with respect to cathode*

|                                                  |                           |                |
|--------------------------------------------------|---------------------------|----------------|
| Anode Voltage. . . . .                           | {18000 max.<br>10000 min. | volts<br>volts |
| Grid-No.4 (Focusing) Voltage:                    |                           |                |
| Positive value . . . . .                         | 1100 max.                 | volts          |
| Negative value . . . . .                         | 550 max.                  | volts          |
| Grid-No.2 Voltage. . . . .                       | {550 max.<br>200 min.     | volts<br>volts |
| Grid-No.1 Voltage:                               |                           |                |
| Negative peak value. . . . .                     | 220 max.                  | volts          |
| Negative bias value. . . . .                     | 155 max.                  | volts          |
| Positive bias value. . . . .                     | 0 max.                    | volts          |
| Positive peak value. . . . .                     | 2 max.                    | volts          |
| Heater Voltage . . . . .                         | {6.9 max.<br>5.7 min.     | volts<br>volts |
| Peak Heater-Cathode Voltage:                     |                           |                |
| Heater negative with respect to cathode:         |                           |                |
| During equipment warm-up period not              |                           |                |
| exceeding 15 seconds. . . . .                    | 450 max.                  | volts          |
| After equipment warm-up period. . . . .          | 200 max.                  | volts          |
| Heater positive with respect to cathode. . . . . | 200 max.                  | volts          |

**Typical Operating Conditions for Cathode-Drive Service:**

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

|                                                                     |          |       |
|---------------------------------------------------------------------|----------|-------|
| Anode Voltage. . . . .                                              | 14000    | volts |
| Grid-No.4 Voltage. . . . .                                          | 0 to 400 | volts |
| Grid-No.2 Voltage. . . . .                                          | 300      | volts |
| Cathode Voltage for visual extinction of<br>focused raster. . . . . | 31 to 57 | volts |

**Maximum Circuit Value:**

|                                        |          |         |
|----------------------------------------|----------|---------|
| Grid-No.1-Circuit Resistance . . . . . | 1.5 max. | megohms |
|----------------------------------------|----------|---------|

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

