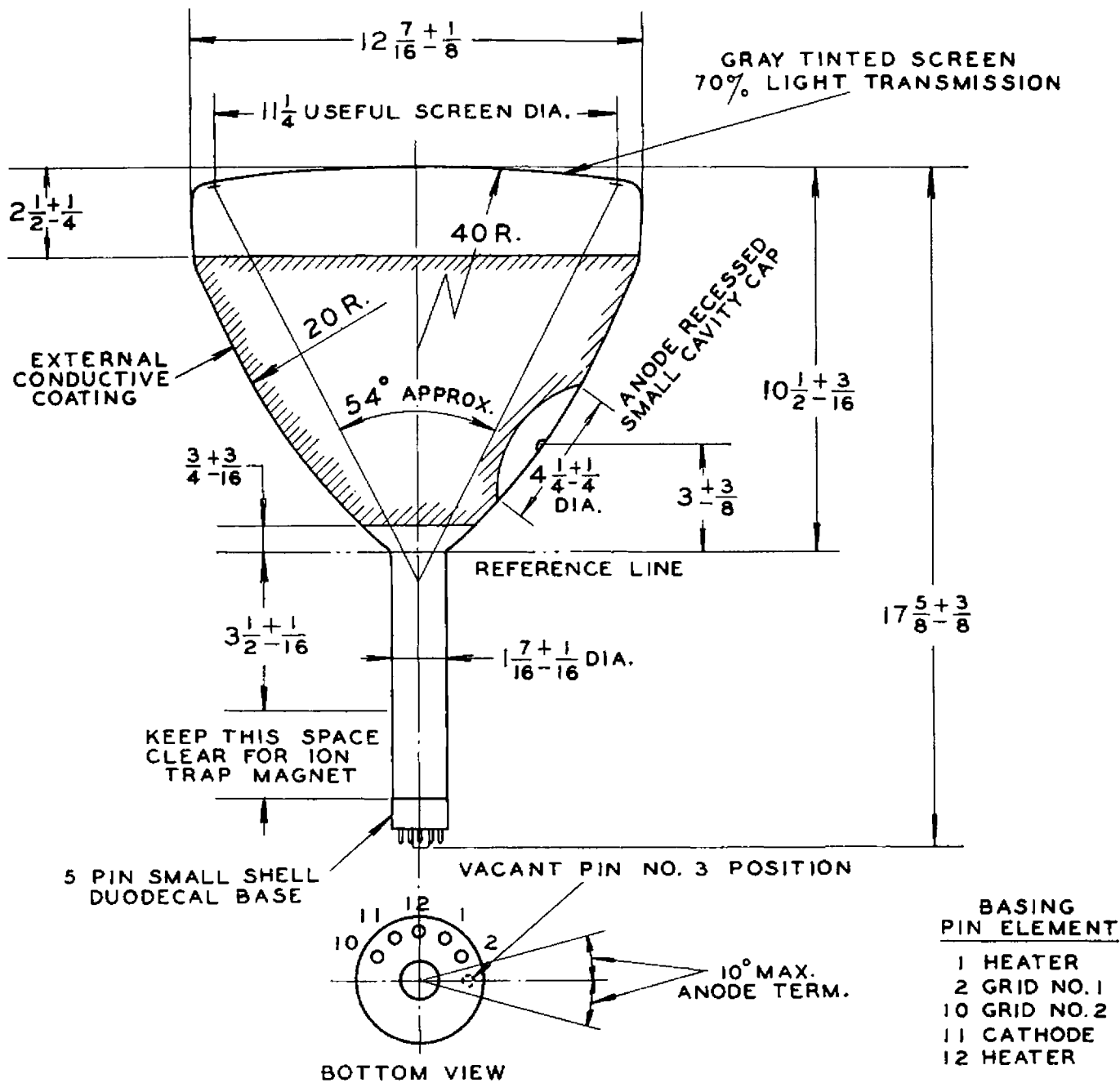


# Sheldon

## TYPE 12ZP4A

**12ZP4 - SAME AS 12ZP4A EXCEPT IT HAS A CLEAR FACE PLATE**



**NOTE:**

REFERENCE LINE:- POINT WHERE 1.500"  $\begin{matrix} +.003" \\ -.000" \end{matrix}$  DIA. RING GAUGE, 2" LONG, (RETMA No. 112) WILL STOP AGAINST BULB.

**SHELDON ELECTRIC CO.**  
DIVISION OF ALLIED ELECTRIC PRODUCTS INC.  
68-98 COIT STREET, IRVINGTON 11, N. J.



# Sheldon 12ZP4A

12½" Directly Viewed Kinescope With Ion Trap and  
Metal Backed Screen

## GENERAL CHARACTERISTICS

Directly viewed picture tube intended for use in television receivers. The tube utilizes magnetic focus and magnetic deflection and contains an electron gun designed to be used with an ion trap magnet. This tube contains a reflective metal backed screen to increase light output.

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### ELECTRICAL

Heater Voltage .....	6.3 Volts
Heater Current .....	0.6 ± 10% Amperes
Focusing Method.....	Magnetic
Deflecting Method .....	Magnetic
Deflecting Angle .....	54 Approx. Deg.
Phosphor .....	No. 4
Fluorescence .....	White
Persistence .....	Medium
External Conductive Coating	
To Anode No. 2.....	2500 Max. $\mu\text{uf}$ 500 Min. $\mu\text{uf}$

### DIRECT INTERELECTRODE CAPACITANCES, APPROX.

Cathode to all other electrodes	5.0 $\mu\text{uf}$
Grid No. 1 to all other electrodes	6.0 $\mu\text{uf}$

### MECHANICAL

Overall Length.....	17 5/8" ± 3/8"
Greatest Diameter of Bulb .....	12 7/16" ± 3/8"
Minimum Useful Screen Diameter .....	11 1/4"
Bulb Contact, Recessed Small Cavity Cap	
JETEC Designation .....	J1-21
Base, Small Shell Duodecal, 5-Pin	
JETEC Designation .....	B5-57
Basing JETEC Designation .....	12D
Bulb Contact aligns with Pin #3	
(vacant) ± 10 Degrees	

### MAXIMUM RATINGS (Design Center Values)

Anode Voltage .....	12,000 Max. Volts D-C
Grid No. 2 Voltage.....	410 Max. Volts D-C

### GRID NO. 1 VOLTAGE

Negative-Bias Value .....	125 Max. Volts D-C
Positive-Bias Value .....	0 Max. Volts D-C
Positive Peak Value .....	2 Max. Volts

### PEAK HEATER CATHODE VOLTAGE

Heater Negative with respect to cathode	
(Note 1).....	140 Max. Volts D-C
Heater Positive with respect to cathode	
.....	140 Max. Volts D-C

### JETEC COMPARATIVE CONDITIONS

Anode Voltage .....	11,000 Volts D-C
Grid No. 2 Voltage .....	250 Volts D-C
Grid No. 1 Voltage (Note 2)	
.....	- 27 to - 63 Volts D-C
Focusing Coil Current (Note 3)	
.....	135 Approx. Milliampères D-C
Ion Trap Current (Note 4)	
.....	85 Approx. Milliampères D-C

### MAXIMUM CIRCUIT VALUES

Grid No. 1 Circuit Resistance .....	1.5 Megohms
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## NOTES

1. A value of 410 max. volts is allowed during equipment warm-up period not to exceed 15 seconds.
2. Visual extinction of undeflected focused spot.
3. For RETMA standard focus coil #106 or equivalent with the combined grid No. 1-bias voltage and video-signal voltage adjusted to produce a highlight brightness of 35 foot lamberts on a 7-3/4" x 10-1/2" picture area. Distance from reference line of bulb to center of focus coil air gap shall be 3.25 inches.
4. With JETEC standard ion trap magnet #111 or equivalent.