

TUNG-SOL

CATHODE RAY

THE 16AEP4 IS A DIRECT-VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

ELECTROSTATIC FOCUS	MAGNETIC DEFLECTION
UNIPOTENTIAL CATHODE	GREY FILTER FACEPLATE
EXTERNAL CONDUCTIVE COATING	EXTERNAL SINGLE FIELD ION TRAP
RECTANGULAR GLASS CONSTRUCTION	10 1/8" X 13 1/2" RASTER SIZE

ELECTRICAL DATA

FOCUSING METHOD		ELECTROSTATIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.):		
DIAGONAL	70	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	5.0	$\mu\mu\text{f}$
GRID #1 TO ALL OTHER ELECTRODES	6.5	$\mu\mu\text{f}$
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	1 500	$\mu\mu\text{f}$
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	$\mu\mu\text{f}$

OPTICAL DATA

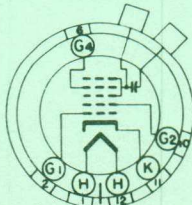
PHOSPHOR NUMBER		NO. 4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	66	PERCENT

MECHANICAL DATA

OVERALL LENGTH	18 3/4 $\pm$ 3/8	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	16 1/8 $\pm$ 1/8	INCHES
WIDTH	14 3/4 $\pm$ 1/8	INCHES
HEIGHT	11 1/8 $\pm$ 1/8	INCHES
MINIMUM USEFUL SCREEN DIMENSIONS:		
WIDTH	13 1/2	INCHES
HEIGHT	10 1/8	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21
BASE	SMALL SHELL DUODECAL 6 PIN	B6-63
BASING		12M
BULB CONTACT ALIGNMENT		
J1-21 CONTACT ALIGNS WITH PIN POSITION #3 $\pm$ 10 DEGREES		

PIN CONNECTIONS

PIN 1 - HEATER
PIN 2 - GRID NO. 1
PIN 6 - GRID NO. 4
PIN 10 - GRID NO. 2



PIN 11 - CATHODE
PIN 12 - HEATER
ANODE CAP:
GRID NO. 3

BOTTOM VIEW

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

RATINGS

DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE, GRID #3 VOLTAGE	16 000	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	410	VOLTS
MAXIMUM GRID #1 VOLTAGE:		
DC NEGATIVE-BIAS VALUE	125	VOLTS
DC POSITIVE-BIAS VALUE	0	VOLTS
POSITIVE-PEAK VALUE	2	VOLTS
MAXIMUM DC PEAK HEATER-CATHODE VOLTAGE: ^A		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
DURING WARM-UP PERIOD NOT TO EXCEED 15 SECONDS	410	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	125	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	125	VOLTS

^A CATHODE SHOULD BE RETURNED TO ONE SIDE OR TO THE MID-TAP OF THE HEATER TRANSFORMER WINDING.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE, GRID #3 VOLTAGE	14 000	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^B	-33 TO -77	VOLTS
DC ION TRAP CURRENT STANDARD COIL #111 (APPROX.)	75 $\pm$ 50%	MA.
DC GRID #4 VOLTAGE	-64 TO +350	VOLTS

^B VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS
------------------------------------	-----	---------

Technical drawing of a cylindrical ion trap magnet assembly. The drawing includes the following dimensions and labels:

- Top diameter: $16 \frac{1}{8} \pm \frac{1}{8}$
- SCREEN DIAGONAL: $14 \frac{7}{8}$
- SCREEN WIDTH: $14 \frac{3}{4} \pm \frac{1}{8}$
- SCREEN HEIGHT: $11 \frac{1}{8} \pm \frac{1}{8}$
- Bottom diameter: $10 \frac{1}{8}$
- Right side height: $3 \frac{11}{32}$
- Right side offset: $\pm \frac{1}{4}$
- EXTERNAL CONDUCTIVE COATING (indicated by hatching on the inner surface)
- ANODE TERMINAL (pointing to the top edge of the inner cylinder)
- Inner cylinder height: $3 \frac{5}{8} \pm \frac{3}{8}$
- Inner cylinder offset: $\pm \frac{3}{8}$
- Inner cylinder diameter: $3 \frac{5}{8} \pm \frac{1}{16}$
- Bottom diameter: $1 \frac{7}{16} \pm \frac{1}{16}$
- Bottom height: $18 \frac{3}{4} \pm \frac{3}{8}$
- Label: KEEP THIS SPACE CLEAR FOR ION TRAP MAGNET (pointing to the bottom section)

