

## TUNG-SOL

## CATHODE RAY

THE 16XP4 IS A DIRECT-VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

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

## ELECTRICAL DATA

FOCUSING METHOD		MAGNETIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.):		
HORIZONTAL	65	DEGREES
VERTICAL	50	DEGREES
DIAGONAL	70	DEGREES

## OPTICAL DATA

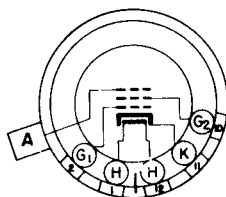
PHOSPHOR NUMBER		NO. 4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE		MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	70	PERCENT

## MECHANICAL DATA

OVERALL LENGTH	18 3/4 ± 3/8	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	16 1/8	INCHES
WIDTH	14 3/4	INCHES
HEIGHT	11 1/2	INCHES
MINIMUM USEFUL SCREEN DIMENSIONS:		
DIAGONAL	15	INCHES
WIDTH	13 19/32	INCHES
HEIGHT	10 3/16	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21
BASE	SMALL SHELL DUODECAL 5 PIN	85-57
BASING		12D
BULB CONTACT ALIGNMENT		
J1-21 CONTACT ALIGNS BETWEEN PIN POSITIONS #6 & 7 ± 10 DEGREES		

## PIN CONNECTIONS

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



PIN 11 - CATHODE  
 PIN 12 - HEATER  
 ANODE CAP

BOTTOM VIEW

CONTINUED ON FOLLOWING PAGE

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## RATINGS

DESIGN CENTER VALUES

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6	AMP.
MAXIMUM DC ANODE VOLTAGE	15 000	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:		
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

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	12 000	VOLTS
DC GRID #2 VOLTAGE	250	VOLTS
DC GRID #1 VOLTAGE <sup>A</sup>	-27 TO -63	VOLTS
DC FOCUSING COIL CURRENT (APPROX.) <sup>B</sup>	100	MA.
DC ION TRAP CURRENT STANDARD COIL #108 (APPROX.)	120	MA.

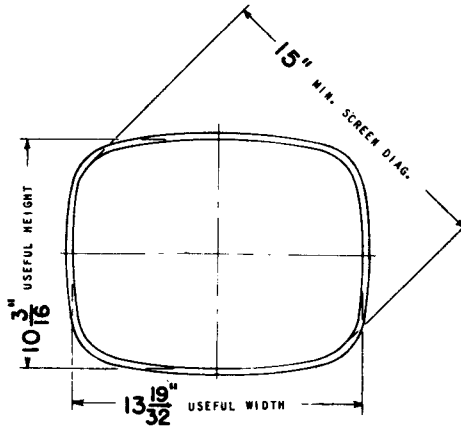
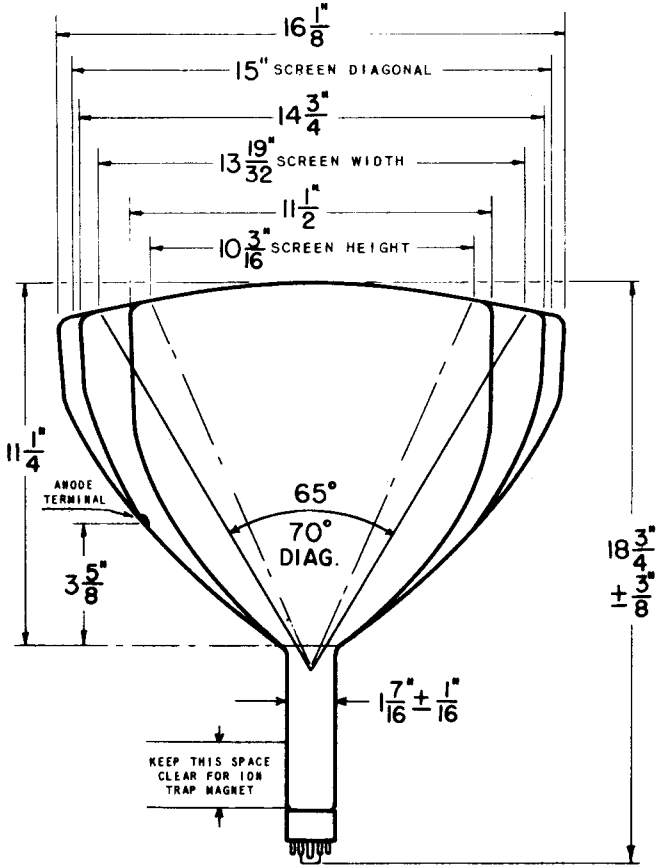
<sup>A</sup> VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.

<sup>B</sup> FOR STANDARD FOCUS COIL #109, OR EQUIVALENT, WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 20 FOOT LAMBERTS ON A 10 1/8" BY 13 1/2" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SHALL BE 3 INCHES.

## CIRCUIT VALUES

MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS
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