TUNG-SOL -

CATHODE RAY

THE 178VP4 IS A VERY SHORT, DIRECT-VIEW PICTURE TUBE DESIGNED FOR TELE-VISION APPLICATIONS. ITS FEATURES INCLUDE:

ALUMINIZED SCREEN
MAGNETIC DEFLECTION
GRAY FILTER FACEPLATE
14 3/4 X 11 3/4 RASTER SIZE
RECTANGULAR GLASS CONSTRUCTION

ELECTROSTATIC FOCUS
UNIPOTENTIAL CATHODE
EXTERNAL CONDUCTIVE COATING
EXTERNAL SINGLE FIELD ION TRAP
CONTROLLED HEATER WARM-UP TIME

ELECTRICAL DATA

FOCUSING METHOD	EL	ECTROSTATIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.):		
HORIZONTAL	105	DEGREES
VERTICAL	87	DEGREES
DIAGONAL	110	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.):		
CATHODE TO ALL OTHER ELECTRODES	5	μμ f
GRID #1 TO ALL OTHER ELECTRODES	6	$\mu\mu$ f
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	1500	$\mu\mu$ f
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	1000	µµ f

OPTICAL DATA

PHOSPHOR NUMBER	SULFIDE TYPE	P-4
FLUORESCENT COLOR		WHITE
PHOSPHORESCENT COLOR		WHITE
PERSISTENCE	SHORT TO MEDIUM	
FACEPLATE TRANSMISSION AT CENTER (APPROX.):	79	PERCENT

RATINGS INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	0.6 ±5%	AMP.
MAXIMUM DC ANODE VOLTAGE	17 600	VOLTS
MAXIMUM DC GRID #4 VOLTAGE	-550 to +1100	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	550	VOLTS
MAXIMUM GRID #1 VOLTAGE:		
DC NEGATIVE-BIAS VALUE	154	VOLTS
DC POSITIVE-BIAS VALUE	C	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 450	VOLTS
AFTER EQUIPMENT WARM-UP PERIOD	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS
HEATER WARM-UP TIME (APPROX.)*	11.0	SECONDS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	14 000	VOLTS
DC GRID #4 VOLTAGE	-50 то +350	VOLTS
DC GRID #2 VOLTAGE	300	VOLTS
DC GRID #1 VOLTAGE ^A	−35 to −72	VOLTS
DC ION TRAP MAGNET RATED STRENGTH	33	GAUSSES

AVISUAL EXTINCTION OF FOCUSED RASTER.

CONTINUED ON FOLLOWING PAGE

^{*}HEATER WARM-UP TIME IS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TERMINALS TO 1M-CREASE TO 5.0 VOLTS IN THE JETEC TEST CIRCUIT, WITH E =25 VOLTS AND SERIES R =31.5 OHMS.

17BVP4 TENTATIVE DATA

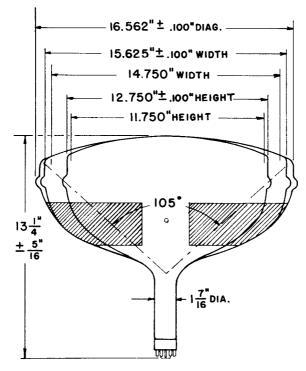
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MECHANICAL DATA

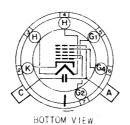
OVERALL LENGTH	13 1/4 ± 5/16	INCHES
GREATEST DIMENSIONS OF BULB:		
DIAGONAL	16.562 ± .100	INCHES
WIDTH	15.625 ± .100	INCHES
HEIGHT	12.750 ± .100	INCHES
MIN. USEFUL SCREEN DIMENSIONS:	-	
DIAGONAL	15.750	INCHES
WIDTH	1.4.750	INCHES
HEIGHT	11.750	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21
BASE		B6-185
BASING		7FA
BULB CONTACT ALIGNMENT		

J1-21 CONTACT ALIGNS WITH PIN POSITION *7 \pm 30 DEGREES



PIN CONNECTIONS

Pin 2 — CATHODE
Pin 3 — HEATER
Pin 4 — HEATER
Pin 5 — GRID #4
Pin 6 — GRID #2



ANODE CAP: GRID NO. 3