

TUNG-SOL**CATHODE RAY**

THE 19QP4 IS A DIRECT VIEW PICTURE TUBE DESIGNED FOR USE IN TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

MAGNETIC DEFLECTION	UNIPOTENTIAL CATHODE
GREY FILTER FACEPLATE	12" X 16" RASTER SIZE
EXTERNAL CONDUCTIVE COATING	EXTERNAL SINGLE FIELD ION TRAP
RECTANGULAR GLASS CONSTRUCTION	LOW VOLTAGE ELECTROSTATIC FOCUS

ELECTRICAL DATA

FOCUSING METHOD		ELECTROSTATIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.)		
HORIZONTAL	66	DEGREES
DIAGONAL	70	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)		
CATHODE TO ALL OTHER ELECTRODES	5	μf
GRID #1 TO ALL OTHER ELECTRODES	6	μf
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	μf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	500	μf

OPTICAL DATA

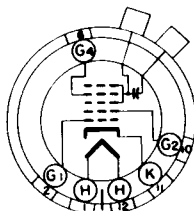
PHOSPHOR NUMBER	NO. 4
FLUORESCENT COLOR	WHITE
PHOSPHORESCENT COLOR	WHITE
PERSISTENCE	MEDIUM

MECHANICAL DATA

OVERALL LENGTH	21 1/8 $\pm$ 3/8	INCHES
GREATEST DIMENSIONS OF BULB		
DIAGONAL	18 5/8 $\pm$ 1/8	INCHES
WIDTH	17 1/16 $\pm$ 1/8	INCHES
MINIMUM USEFUL SCREEN DIMENSIONS		
DIAGONAL	17 21/32	INCHES
WIDTH	16	INCHES
HEIGHT	12	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J4-21
BASE	SMALL SHELL DUODECAL 6 PIN	B6-63
BASING		12L
BULB CONTACT ALIGNMENT		
J4-21 CONTACT ALIGNS WITH PIN POSITION #6 $\pm$ 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 VOLTAGE	18 000	VOLTS
MAXIMUM DC GRID #4 VOLTAGE	500	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	150	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	150	VOLTS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

DC ANODE VOLTAGE	12 000	VOLTS
DC GRID #4 VOLTAGE ^A	-50 TO +350	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 ± 50%	MA.

^A_b SET FOR 100 UAMP.^B VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.**CIRCUIT VALUES**

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