

TUNG-SOL

CATHODE RAY

THE 19DP4 AND 19DP4A ARE DIRECT VIEW PICTURE TUBES DESIGNED FOR USE IN TELEVISION APPLICATIONS. THEY ARE IDENTICAL EXCEPT FOR THE FOLLOWING DIFFERENCE IN THEIR FACEPLATES:

19DP4 - CLEAR GLASS FACEPLATE

19DP4A - GREY FILTER FACEPLATE

THEIR COMMON FEATURES INCLUDE:

UNIPOTENTIAL CATHODE
MAGNETIC FOCUS & DEFLECTION
11 3/4" X 15 3/4" RASTER SIZE

ROUND GLASS CONSTRUCTION
EXTERNAL CONDUCTIVE COATING
EXTERNAL SINGLE FIELD ION TRAP

ELECTRICAL DATA

FOCUSING METHOD		MAGNETIC
DEFLECTING METHOD		MAGNETIC
DEFLECTION ANGLE (APPROX.)	56	DEGREES
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)		
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	2500	μmf
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	μmf

OPTICAL DATA

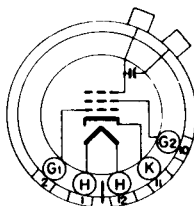
PHOSPHOR NUMBER	NO. 4
FLUORESCENT COLOR	WHITE
PHOSPHORESCENT COLOR	WHITE
PERSISTENCE	MEDIUM
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.)	19DP4A 70 PERCENT

MECHANICAL DATA

OVERALL LENGTH	21 1/2 $\pm$ 3/8	INCHES
GREATEST DIAMETER OF BULB	18 7/8 $\pm$ 1/8	INCHES
MINIMUM USEFUL SCREEN DIAMETER	17 3/8	INCHES
BULB CONTACT	RECESSED SMALL CAVITY CAP	J1-21
BASE	SMALL SHELL DUODECAL 5 PIN	B5-57
BASING		12N
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 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	17 000	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	13 000	VOLTS
DC GRID #2 VOLTAGE	250	VOLTS
DC GRID #1 VOLTAGE ^A	-26 TO -63	VOLTS
DC FOCUSING COIL CURRENT (APPROX.) ^B	146	MA.
DC ION TRAP CURRENT STANDARD COIL (APPROX.)	75 $\pm$ 50%	MA.

^A VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.^B 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 25 FOOT LAMBERTS ON A 11 3/4" BY 15 3/4" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SHALL BE 3.25 INCHES.**CIRCUIT VALUES**

MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.5	MEGOHMS
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