

P4 cathode-ray display tube designed for high-voltage direct viewing, with anode ratings to about 14 kV and adjustable electrostatic focusing controls.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	4 V / 4 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray

No fixed ratings recorded.

Source-derived physical section; applicable promoted ratings are populated from the printed sheet.

WESTINGHOUSE ELECTRONIC TUBE DIVISION April 23, 1956 Page 1 Television Picture Tube Types 14NP4 & 14NP4~A Rectangular Glass Construction Electrostatic Focus 90° Deflection External Conductive Coating Spherical Faceplate Magnetic Deflection 12-1/8n g-5/8" Picture Size The 14NP4 and 14NPshare electrostatic-focus, directly-viewed picture tubes of rec- tangular glass construction. A new bulb design permits 90° deflection with & re- sulting reduction of the overall length of approximately two inches as compared with previously available l4-inch tubes, The faceplates are spherical and they are made of neutral gray glass, Both types have an external conductive coating; the 14NP4A hes a metal-backed screen for increased picture brightness, GENERAL DATA Electrical: Cathode. ¢ 4 ¢ s v v o s s « o o« » oCoated Unipotential Heater: Voltage. . v v v v 4w v v o o v o o o 4 a e 6.3 ac or dec Volts Current. . +. v v 4 4 4 b 4 e e e e e e 0.6 Ampere Direct Interelectrode Capacitances:

SOURCE OPERATING CONDITIONS

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Published test conditions and operating points. Values on this page are preserved as reported by this source.

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Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage. . v v v v	6.3 V	Voltage. . v v v v 4w v v o o v o o o 4 a e 6.3 ac or dec Volts
Current. . +. v v	600 mA	Current. . +. v v 4 4 4 b 4 e e e e e e 0.6 Ampere
Cathode to all other electrodes, ... ,	5 pF	Cathode to all other electrodes, ... , . 5 upf
Minimum &	500 pF	Minimum & 4 4 v 4 4 4 4 o 4 o . 500 ppf
Anode Voltage # v o o o o o o o o « ¢ o « ¢ o o 2 + o o « ¢ o « ¢ o o	14000 V	Anode Voltage # v o o o o o o o o « ¢ o « ¢ o o 2 + « + « « 14000 max, Volts
Grid	4 V	Grid 4 Voltage:
Positive VBLUE . o « o &	1000 V	Positive VBLUE . o « o & 4 o s o = 4 o o o o s o + o » » 1000 max, Volts
Negative Value , . . o ¢ o v s o o o o o o s o o » « »	500 V	Negative Value , . . o ¢ o v s o o o o o o s o o » « » 500 max., Volts
Grid	500 V	Grid 2 Voltage o &« . o o « « « o o o « o « « o + » » « 500 max, Volts
Grid	1 V	Grid 1 Voltage:
Negative Biss Value , . , . . ¢ v &	180 V	Negative Biss Value , . , . . ¢ v & 4 o o o v o o & 180 max. Volts
Positive Bias Value . , . , . & v v v	0 V	Positive Bias Value . , . , . & v v v 4 o o » o s ¢ 0 max, Volts
Positive Peak Value . , . » v & ¢ o « e o o	0 V	Positive Peak Value . , . » v & ¢ o « e o o 2 o » o o 0 max, Volts
During Warm-up Period of	410 V	During Warm-up Period of 15 sec. max., ... + .. 410 mex, Volts
After Equipment Warm-up Period +	180 V	After Equipment Warm-up Period + .. 180 mex. Volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Positive with respect to Cathode	180 V	Heater Positive with respect to Cathode 180 max. Volts
For Anode Voltage #,	12000 V	For Anode Voltage #, ... 10,000 12,000 Volts
For Grid	300 V	For Grid 2 Voltage #, . . . + . . « « » « « . . 250 300 Volts
Grid	4 V	Grid 4 Voltage for Focus
pampere e e o« + » =	350 A	pampere e e o« + » =50 to +4350 -50 to+350 Volts
Grid	1 V	Grid 1 Voltage for Vlsual
Focused Raster, ... =	72 V	Focused Raster, ... =24 to =64 -28 to =72 Volts
Grid	1.5 Mohm	Grid 1 Circuit Resistance#, ... 1.5 max, Megohms
Grid	0.1 Mohm	Grid 2 Circuit Resistesnce*, ... +. ¢ « « o » 0.1 min, Megohms
the anode voltage should not be less than),	0 V	the anode voltage should not be less than),000 volts,

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focus Electrode Circuit Resistance. e e o o+	0.1 Mohm	Focus Electrode Circuit Resistance. e e o o+ 0.1 min., Megohms

TUBE TINKER

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