

Large P4 monochrome television picture tube in the 24-inch class, designed for high-voltage direct-view service with manufacturer-specified focusing, magnetic deflection, and beam-control characteristics for type 24ADP4.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12N	BASE PINS	5
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	24200 V
MAXIMUM SCREEN VOLTAGE	660 V
CRT electrode, focus, deflection and optical data preserved in parameter rows.	

Large rectangular direct-view television picture tube with grey-filter aluminized screen, magnetic focus/deflection, conductive coating, and external ion trap.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Cathode Ray

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	600 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Voltage	24200 V	—
Grid2 Voltage	660 V	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Voltage	24200 V	—
Typical Anode Voltage	18000 V	—
Maximum Grid2 Voltage	660 V	—
Typical Grid2 Voltage	300 V	—
Heater Warmup Time	11 s	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
FocusingMethod	Magnetic	—
DeflectingMethod	Magnetic	—
DiagonalDeflectionAngleApproximate	90 degree	—
PhosphorNumber	4	—
FluorescentColor	White	—
Faceplate	Gray filter; aluminized screen	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1966 Tung Sol Electronic Tubes 4 of 4

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1966 TUNG SOL ELECTRONIC TUBES 4 OF 4

Section 1 · Cathode Ray

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focusing method	Magnetic	—
Deflecting method	Magnetic	—
Phosphor	P4	White;MediumPersistence
External conductive coating	Present	—
Aluminized screen	Present	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Deflection angle	70 deg	Approximate
Faceplate light transmission at center	75 %	Approximate

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	600 mA	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC anode voltage	24200 V	—
Maximum DC grid #2 voltage	660 V	—
Maximum grid #1 negative-bias magnitude	125 V	—
Maximum grid #1 positive DC voltage	0 V	—
Maximum grid #1 positive peak voltage	2 V	—
Typical DC anode voltage	18000 V	TelevisionPictureTube
Typical DC grid #2 voltage	300 V	TelevisionPictureTube
Typical grid #1 voltage minimum	-72 V	VisualExtinctionRange
Typical grid #1 voltage maximum	-28 V	VisualExtinctionRange
Maximum grid #1 circuit resistance	1.5 megohm	—
Focusing coil current	125 mA	Approximate
Ion trap magnet rated strength	36 gauss	Approximate
Heater warm-up time	11 s	—
Maximum grid #1 circuit resistance	1.5 megohm	—
Ion trap current standard coil #117	32 mA	Approximate
Raster width	21.4375 in	Approximate
Raster height	16.875 in	Approximate

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-to-all-other-electrodes capacitance	5 pF	Approximate
Grid #1-to-all-other-electrodes capacitance	6 pF	Approximate

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Direct-view television picture tube	—