

ELECTRONIC TUBE REFERENCE

8YP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Eight-inch P4 cathode-ray display tube for high-voltage direct visual service, using magnetic deflection and manufacturer-specified focusing, grid-control, and accelerating-voltage characteristics.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7FG	BASE PINS	6
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7FG - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G1	A	G1 – Control Grid	CONNECTED
PIN2 – IS	A	IS – Internal Screen	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – P	A	P – Plate (Anode)	CONNECTED
PIN6 – G2	A	G2 – Screen Grid	CONNECTED
PIN7 – K	A	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Cathode Ray
MAXIMUM PLATE VOLTAGE22000 V
Cathode-ray section. CRT anode/ultor, grid, focus/deflection, heater-cathode, capacitance, and operating values are stored as section parameters.

The Sylvania 8YP4 is a 8-inch wide-angle P4 receiver-check CRT with self-focusing electrostatic gun and magnetic deflection.



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	22000 V	—
Typical Anode Voltage	16000 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Phosphor	P4	—
Focusing Method	Self Focusing (Electrostatic)	—
Deflecting Method	Magnetic	—



SOURCE OPERATING CONDITIONS

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1965 Sylvania Electronic Tubes Vol3

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1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	600 mA	—
Focusing Method	Self-Focusing Electrostatic text	—
Deflection Method	Magnetic text	—
Deflection Angle	110 deg	Approximate

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Phosphor	P4 text	—
Fluorescence	White text	—
Persistence	Short to Medium text	—
Cathode-to-All Capacitance	5 pF	Approximate
Grid1-to-All Capacitance	6 pF	Approximate
Vertical Deflection Angle	87 deg	—
Horizontal Deflection Angle	105 deg	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Voltage	22000 V	—
Maximum Grid2 Voltage	550 V	—
Maximum Grid1 Negative Bias	155 V	RepresentativePublishedLimit
Maximum Grid1 Positive Peak	2 V	—
Maximum Heater-Cathode Voltage During Warmup	450 V	Duration<=15s
Maximum Heater-Cathode Voltage After Warmup	200 V	—
Anode Voltage	16000 V	—
Grid2 Voltage	300 V	—
Grid1 Cutoff Voltage Minimum	-72 V	—
Grid1 Cutoff Voltage Maximum	-35 V	—
Maximum Grid1 Circuit Resistance	1.5 Mohm	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 1 of 7

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Section 1 · Cathode Ray

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode to All Other Electrodes Capacitance	4 pF	—
Grid #1 to All Other Electrodes Capacitance	6 pF	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focusing Method	Electrostatic self-focus	—
Deflecting Method	Magnetic	—
Deflection Angle	110 deg	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage	—22000 V	Design maximum
Grid #2 and Grid #4 Voltage	—550 V	—
Grid #1 Negative Peak Voltage	—220 V	—
Grid #1 Negative Bias Voltage	—155 V	—
Grid #1 Positive Bias Voltage	—0 V	—
Grid #1 Positive Peak Voltage	—2 V	—
Peak Heater-Cathode Voltage - Heater Negative During Warm-Up	—450 V	Warm-up period ≤15 s
Peak Heater-Cathode Voltage - Heater Negative After Warm-Up	—200 V	—
Peak Heater-Cathode Voltage - Heater Positive	—200 V	—
Anode Voltage	16000 V	CathodeDrive
Grid #2 and Grid #4 Voltage	400 V	CathodeDrive
Cathode Voltage for Visual Extinction	42–78 V	CathodeDrive
Grid #1 Circuit Resistance	—1.5 MΩ	Maximum circuit value