

Electrostatically focused and deflected P1 cathode-ray instrument tube for waveform display, with a 6.3 V heater, adjustable focusing, and manufacturer-specified deflection sensitivity.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
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
No fixed ratings recorded.
CRT section; maximum anode voltage 2750 V and capacitances retained in parameter table.

TENTATIVE RAYONIC fi J- 3Yr2 AN PRODUCTS 3YP7 RAYONIC 3YP1 CATHODE RAY TUBE 3YP11
Focusing Method ceocecsseassscssscsooscessesoseso Electrostatic

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1960 Waterman Products

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

1960 WATERMAN PRODUCTS

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RAYONIC [1]	3	RAYONIC 3YP1 CATHODE RAY TUBE 3YP11
RAYONIC [2]	3	RAYONIC 3YP1 CATHODE RAY TUBE 3YP11
RAYONIC [3]	1	RAYONIC 3YP1 CATHODE RAY TUBE 3YP11
Heater Volta.ge PR DB EOEPCICEIIBLIOENE B IGOB00EC0IOPEORCOEDRTDLES	603	Heater Volta.ge PR DB EOEPCICEIIBLIOENE B IGOBOOECOIOPEORCOEDRTDLES 603 Volt-S
Heater Current .souseusccssssscocccssnscsescoe [1]	600 mA	Heater Current .souseusccssssscocccssnscsescoe 0.6 + 10% Amperes
Heater Current .souseusccssssscocccssnscsescoe [2]	10 A	Heater Current .souseusccssssscocccssnscsescoe 0.6 + 10% Amperes
Cathode to all Other electrodes e0 [1]	0 pF	Cathode to all Other electrodes e00ORGEORCESIIPRAPROC o8 502 uuf
Cathode to all Other electrodes e0 [2]	502 pF	Cathode to all Other electrodes e00ORGEORCESIIPRAPROC o8 502 uuf
Grid # [1]	1 pF	Grid #1 to all other Electrodes seeseccscssssosescce 209 uuf
Grid # [2]	209 pF	Grid #1 to all other Electrodes seeseccscssssosescce 209 uuf
Positive volts on D1l deflects beam approx. toward pin #	5 V	Positive volts on D1l deflects beam approx. toward pin #5
Positive volts on D3 deflects beam approx., toward pin #	3 V	Positive volts on D3 deflects beam approx., toward pin #3
Anode Voltage (AZ) [1]	80680000009 V	Anode Voltage (AZ) 0080680000009 CREO0ER0C0OOISEPRIG 2750 Volts DC
Anode Voltage (AZ) [2]	2750 V	Anode Voltage (AZ) 0080680000009 CREO0ER0C0OOISEPRIG 2750 Volts DC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode (Az) Inpl.It eE [1]	0	Anode (Az) Inpl.It eE 0N S 0800020000 IR0 ICIRRREIOBOIIAERIA 6 Watts
Anode (Az) Inpl.It eE [2]	800020000	Anode (Az) Inpl.It eE 0N S 0800020000 IR0 ICIRRREIOBOIIAERIA 6 Watts
Anode (Az) Inpl.It eE [3]	6	Anode (Az) Inpl.It eE 0N S 0800020000 IR0 ICIRRREIOBOIIAERIA 6 Watts
Anode # [1]	1 V	Anode #1 (Focusing Electrode) Voltage sosceecesesssss 1100 Volts
Anode # [2]	1100 V	Anode #1 (Focusing Electrode) Voltage sosceecesesssss 1100 Volts
Grid #	1	Grid #1 (G1) Voltage
Peak volts between Anode # [1]	2 V	Peak volts between Anode #2 and any deflecting plate 550 Volts
Peak volts between Anode # [2]	550 V	Peak volts between Anode #2 and any deflecting plate 550 Volts
Al Voltage [1]	185	Al Voltage 18,5% to 34% of A2 Voltage
Al Voltage [2]	34	Al Voltage 18,5% to 34% of A2 Voltage
Gl Voltage [1]	2.8	Gl Voltage 2.8% to 6.7% of A2 Voltage (NOTE 2)
Gl Voltage [2]	6.7	Gl Voltage 2.8% to 6.7% of A2 Voltage (NOTE 2)
Gl Voltage [3]	2	Gl Voltage 2.8% to 6.7% of A2 Voltage (NOTE 2)
Anode Voltage (A2) [1]	500 V	Anode Voltage (A2) 500 1000 2000 Volts
Anode Voltage (A2) [2]	1000 V	Anode Voltage (A2) 500 1000 2000 Volts
Anode Voltage (A2) [3]	2000 V	Anode Voltage (A2) 500 1000 2000 Volts
Focusing Electrode Voltage (A1) [1]	92.51017 V	Focusing Electrode Voltage (A1) 92.510170 185 to 340 370 to GBO Volts
Focusing Electrode Voltage (A1) [2]	185 V	Focusing Electrode Voltage (A1) 92.510170 185 to 340 370 to GBO Volts
Focusing Electrode Voltage (A1) [3]	340 V	Focusing Electrode Voltage (A1) 92.510170 185 to 340 370 to GBO Volts
Focusing Electrode Voltage (A1) [4]	370 V	Focusing Electrode Voltage (A1) 92.510170 185 to 340 370 to GBO Volts
Grid # [1]	1 V	Grid #1 Voltage (Note 2) =140 -33.5 ~28t0- 67 -56t0 —134 Volts
Grid # [2]	2 V	Grid #1 Voltage (Note 2) =140 -33.5 ~28t0- 67 -56t0 —134 Volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid # [3]	140 V	Grid #1 Voltage (Note 2) =140 -33.5 ~28t0-67 -56t0 —134 Volts
Grid # [4]	-33.5 V	Grid #1 Voltage (Note 2) =140 -33.5 ~28t0-67 -56t0 —134 Volts
Grid # [5]	28 V	Grid #1 Voltage (Note 2) =140 -33.5 ~28t0-67 -56t0 —134 Volts
Grid # [6]	-67 V	Grid #1 Voltage (Note 2) =140 -33.5 ~28t0-67 -56t0 —134 Volts
Grid # [7]	-56 V	Grid #1 Voltage (Note 2) =140 -33.5 ~28t0-67 -56t0 —134 Volts
Grid # [8]	-134 V	Grid #1 Voltage (Note 2) =140 -33.5 ~28t0-67 -56t0 —134 Volts
Deflection Factor D1-D2 [1]	341046 V	Deflection Factor D1-D2 341046 681092 136 to 184 Volts DC/Inch
Deflection Factor D1-D2 [2]	681092 V	Deflection Factor D1-D2 341046 681092 136 to 184 Volts DC/Inch
Deflection Factor D1-D2 [3]	136 V	Deflection Factor D1-D2 341046 681092 136 to 184 Volts DC/Inch
Deflection Factor D1-D2 [4]	184 V	Deflection Factor D1-D2 341046 681092 136 to 184 Volts DC/Inch
Deflection Factor D3-D4 [1]	22 V	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Deflection Factor D3-D4 [2]	30 V	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Deflection Factor D3-D4 [3]	4410 V	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Deflection Factor D3-D4 [4]	60 V	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Deflection Factor D3-D4 [5]	8810120 V	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Grid # [1]	1	Grid # 1 Circuit RESISTANCE ... cceemarmssssmscrsssmasamrsse 1.5 Megohms
Grid # [2]	1.5	Grid # 1 Circuit RESISTANCE ... cceemarmssssmscrsssmasamrsse 1.5 Megohms
Resistancein any Deflecting Electrode Circuit (INote [1]	3 mm	Resistancein any Deflecting Electrode Circuit (INote 3) ..ocrrcmnmssinsessessess s o 1.0 Megohms

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Resistance in any Deflecting Electrode Circuit (INote [2])	1 mm	Resistance in any Deflecting Electrode Circuit (INote 3) ..ocrrcmnmmssinsessesses s o 1.0 Megohms
Published value	1	1. With deflecting electrodes connected to Anode (A2).
Published value	2	2. For visual extinction of undeflected focused spot.
Published value	3	3. The resistance in each deflecting electrode circuit should be approximately equal.
Use of [1]	3 V	Use of 3YP7 at anode voltages below 1000 volts is not recommended,
Use of [2]	1000 V	Use of 3YP7 at anode voltages below 1000 volts is not recommended,