



2P21

IMAGE ORTHICON

DATA

General:

Heater, for Unipotential Cathode:		
Voltage (AC or DC)	6.3 ± 10%	volts
Current	0.6	ampere
Direct Interelectrode Capacitance:		
Anode to All Other Electrodes	20	μf
Photocathode, Semi-transparent:		
Response	See Fig. 1	
Useful Size of Rectangular Image (4 x 3 aspect ratio)	1.6"	Diagonal
Focusing Method	Magnetic	
Deflection Method	Magnetic	
Overall Length	15-1/4" ± 1/2"	
Greatest Diameter of Bulb	3" ± 1/16"	
Shoulder Base	Jumbo Annular 7-Pin	
End Base	Small-Shell Diheptal 14-Pin	
Deflecting-Coil Length	5"	
Focusing-Coil Length	10"	
Alignment-Coil Length	15/16"	
Photocathode Distance Inside End of Focusing Coil	1/2"	

Maximum Ratings, Absolute Values:

PHOTOCATHODE VOLTAGE	450 max.	volts
PHOTOCATHODE ILLUMINATION	50 max.	ft-c
GRID-No. 6 (ACCELERATOR) VOLTAGE	450 max.	volts
OVERALL MULTIPLIER VOLTAGE*	1650 max.	volts
MULTIPLIER VOLTAGE PER STAGE	350 max.	volts
GRID-No. 1 VOLTAGE:		
Negative bias value	-100 max.	volts
Positive bias value	0 max.	volts
AMBIENT TEMPERATURE	50 max.	°C

Typical Operation:

Photocathode Voltage (Image Focus)**	-300	volts
Grid-No. 6 Voltage (Accelerator)--		
80% of photocathode voltage ^o	-240	volts
Target Voltage ^{oo}	0	volts

NOTE: The 2P21 is a discontinued type; data are furnished for JETEC registration purposes only.



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Typical Operation (Cont'd):

Grid-No.5 Voltage (Decelerator)#	25	volts
Grid-No.4 Voltage (Beam Focus)##	125	volts
Grid-No.3 Voltage [□]	210	volts
Grid-No.2 & Dynode-No.1 Voltage	210	volts
Grid-No.1 Voltage (For Picture Cutoff) ^{□□}	-45	volts
Dynode-No.2 Voltage	525	volts
Dynode-No.3 Voltage	850	volts
Dynode-No.4 Voltage	1150	volts
Dynode-No.5 Voltage	1450	volts
Anode Voltage	1500	volts
Target Operating Temperature.	35 to 45	°C
Field Strength at Center of Focusing Coil	60	gausses

- * Ratio of dynode voltages is shown under Typical Operation.
- ** Adjustable within ± 25% of indicated value.
- For best operation, this voltage should be adjustable within ± 25% of indicated value. For simplified equipment, this voltage can be fixed.
- Adjustable within ± 3 volts of indicated value, with blanking voltage off.
- # For best operation, this voltage should be adjustable within ± 100% of indicated value. For simplified equipment, this voltage can be fixed.
- ## Adjustable within ± 20% of indicated value.
- Adjustable within ± 33% of indicated value. Adjust to give the most uniformly shaded picture near maximum signal.
- Adjustable over range from -5 to -70 volts.

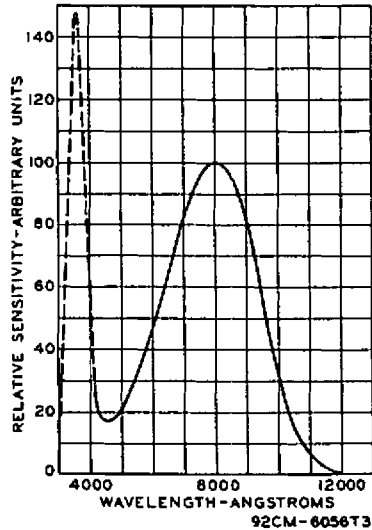


Fig. 1 - Approximate Spectral Sensitivity Characteristic of Type 2P21.



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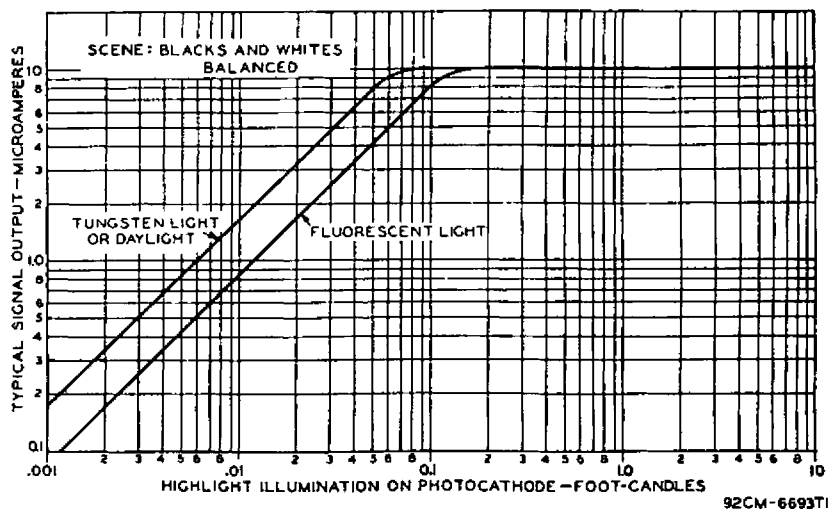


Fig. 2 - Typical Signal Output of Type 2P21.

SOCKET CONNECTIONS

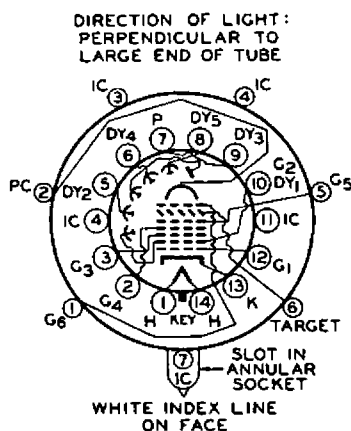
Bottom View

SMALL-SHELL DIHEPTAL 14-PIN BASE

PIN 1: HEATER	PIN 9: DYNODE No. 3
PIN 2: GRID No. 4	PIN 10: DYNODE No. 1, GRID No. 2
PIN 3: GRID No. 3	PIN 11: INTERNAL CONNEC- TION - DO NOT USE
PIN 4: INTERNAL CONNEC- TION - DO NOT USE	PIN 12: GRID No. 1
PIN 5: DYNODE No. 2	PIN 13: CATHODE
PIN 6: DYNODE No. 4	PIN 14: HEATER
PIN 7: ANODE	
PIN 8: DYNODE No. 5	

JUMBO ANNULAR 7-PIN BASE

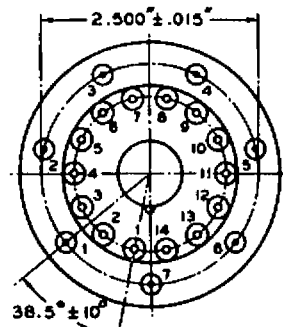
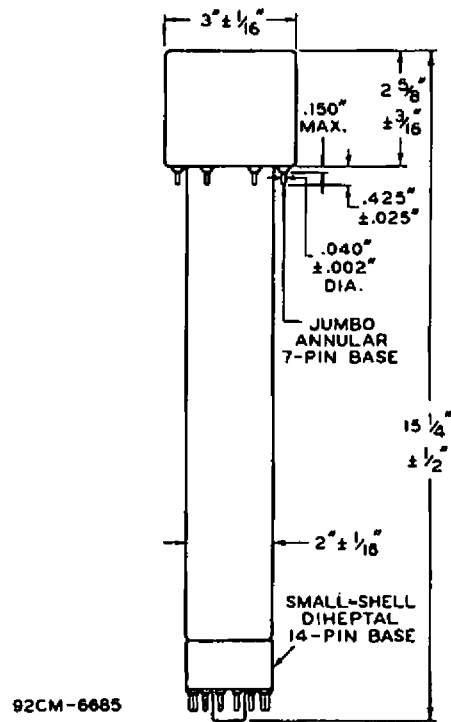
PIN 1: GRID No. 6	PIN 5: GRID No. 5
PIN 2: PHOTOCATHODE	PIN 6: TARGET
PIN 3: INTERNAL CONNEC- TION - DO NOT USE	PIN 7: INTERNAL CONNEC- TION - DO NOT USE
PIN 4: INTERNAL CONNEC- TION - DO NOT USE	





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DIMENSIONAL OUTLINE



ENLARGED BOTTOM VIEW