

August 25, 1958

SLOW SCAN VIDICON TYPE WL-7290

The WL-7290 is a small size vidicon type camera tube designed for slow speed scanning applications. The extremely low dark current of the WL-7290 permits high-resolution, long-storage-time with higher sensitivity, higher output signal and better signal-to-noise ratio.

The WL-7290 with slow scan is also useful for transmitting high resolution information over conventional audio circuits as the system bandwidth requirements are sharply reduced with slow scan.

ELECTRICAL:

Cathode	Coated Unipotential
Heater:	
Voltage (ac or dc)	6.3 ± 10% Volts
Current	0.6 Ampere
Direct Interelectrode Capacitance:	
Signal Electrode to all other	
Electrodes	4.5 uuf
Spectral Response	from 3000 to 6000 Angstroms
Photoconductive Layer:	
Orientation of Tube to Scan	Proper orientation is obtained when the horizontal scan is essentially parallel to the plane passing through the tube axis and short index pin.
Focusing Method	Magnetic
Deflection Method	Magnetic

MECHANICAL:

Overall Length	6-1/4" ± 1/4"
Greatest Diameter	1.125" ± 0.010"
Bulb	T-8
Base	Small-Button, 8-Pin (JETEC E8-11)
Operating Position	Any
Basing	8HM

MAXIMUM RATINGS:

Absolute Maximum System	
Signal-Electrode Voltage	25 max. Volts
Grid 4 & Grid 3 Voltage	350 max. Volts
Grid 2 Voltage	350 max. Volts
Grid 1 Voltage:	
Negative Bias Value	125 max. Volts
Positive Bias Value	0 max. Volts
Heater-Cathode Voltage:	
Heater Negative with Respect to Cathode	125 max. Volts
Heater Positive with Respect to Cathode	10 max. Volts
Faceplate Temperature	45 max. °C

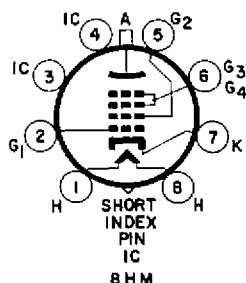
TYPICAL OPERATION AND CHARACTERISTICS:

For Scanned Area of 1/2" x 3/8"▲

Signal-Electrode Voltage	10 to 25	Volts
Grid 4 (Decelerator) & Grid 3 (Beam Focus) Voltage	250	Volts
Grid 2 (Accelerator) Voltage	300	Volts
Grid 1 Voltage:		
(For Picture Cutoff▲)	-45 to -100	Volts
Dark Current	0.0002	uamp
Average "Gamma" of Transfer Characteristic for Signal Output Current Between 0.0002 and 0.2 uamp	0.95	
Min. Peak-to-Peak Blanking Voltage:		
When Applied to Grid 1	40	Volts
When Applied to Cathode	10	Volts
Field Strength at Center of Focusing Device	40	Gauss
Field Strength of Adjustable Alignment Coil	0 to 4	Gauss
Approx. Storage Time:		
450 Line Resolution	40	Seconds
350 Line Resolution	120	Seconds

▲ The quality area of the target extends to the edges of the target. The entire target may therefore be scanned with no degradation of picture quality.

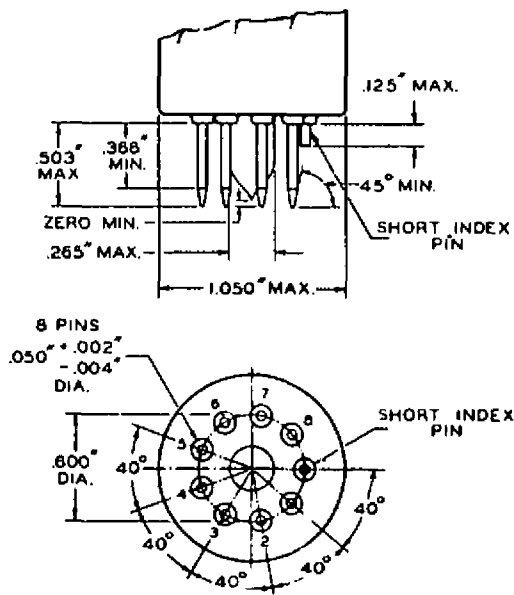
▲ With no blanking voltage on Grid 1.



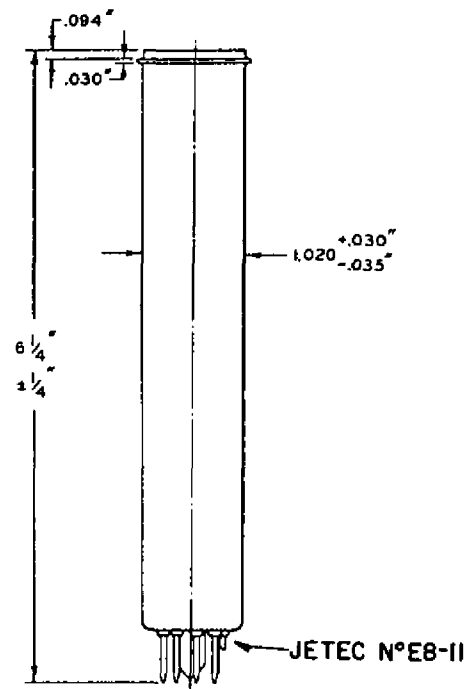
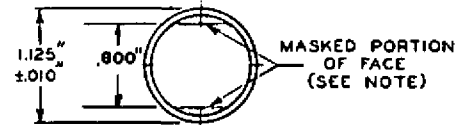
from JETEC release #2273, Sept. 8, 1958

Special Devices Section

8 PIN BASE JETEC N°E8-II



BASE-PIN POSITIONS ARE HELD TO TOLERANCES SUCH THAT PINS WILL FIT A FLAT PLATE GAUGE HAVING THICKNESS OF $1/4"$ AND 9 HOLES $0.0700" \pm 0.0005"$ SO LOCATED ON A $0.6000" \pm 0.0005"$ DIA. CIRCLE THAT THE DISTANCE ALONG THE CHORD BETWEEN ANY TWO ADJACENT HOLE CENTERS IS $0.2052" \pm 0.0005"$. GAUGE IS PROVIDED WITH CENTER HOLE HAVING DIAMETER OF $0.300" \pm 0.001"$ AND SAME CENTER AS THE PIN CIRCLE.



STRAIGHT SIDES OF MASKED PORTIONS ARE PARALLEL TO PLANE PASSING THROUGH TUBE AXIS AND SHORT INDEX PIN

CE-A1350