

# Dieter's Nixie Tube Data Archive

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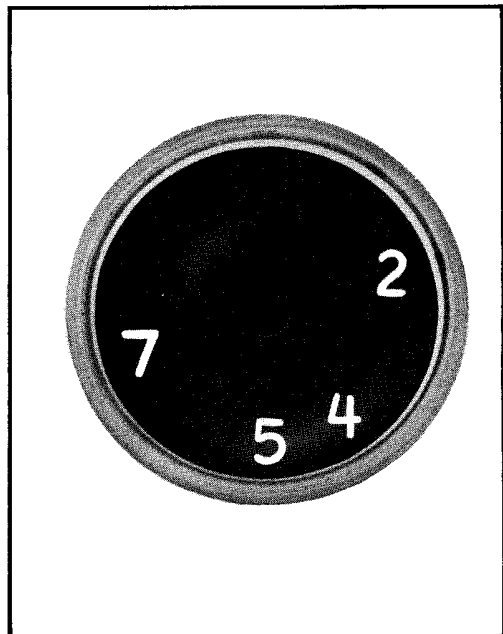
If you have more datasheets, articles, books, pictures or other information about Nixie tubes or other display devices please let me know.

Thank you!

Document in this file	Burroughs – Bulletin 1034A - Dated September 1, 1963
Display devices in this document	B-9012, SK-111H, SK-111V



# READOUT DEVICES



## NUMERICAL INDICATOR Type B-9012 PIXIE® Position Indicator Tube

The B-9012 is a gas-filled, cold cathode, indicator tube. It contains ten glow positions or cathodes located 36° apart which are visible through numerical perforations in a plate located above the cathodes. The plate serves as a common anode and functions in the manner of an internal bezel with the indicated number determined by the position of the glow discharge. A twelfth electrode functions as a "keep alive" to obtain rapid ionization for those applications in which this property is desirable.

The PIXIE Indicator Tube is an extremely low cost device which has the ability to display up to ten independent bits of information simultaneously. It is ideal for counting or status displays and requires very low power. It has the same long life characteristics as Burroughs NIXIE Indicator Tubes.

### MECHANICAL DATA

Overall Length .....	1.040 max.
Seated Height .....	.720 ± .060
Bulb Diameter .....	1.080 max.
Socket .....	SK-111 H, SK-111 V
Mounting Position .....	Any
Weight .....	1.0 oz. max.

### ELECTRICAL DATA

#### ABSOLUTE RATINGS

Individual Cathode Ionization Voltage .....	150 Vdc max.
Individual Cathode Current .....	600μ Adc max.
Keep Alive Ionization Voltage .....	180 Vdc max.

#### TEST CONDITIONS

Anode to Cathode Supply Voltage .....	150 Vdc
Anode Series Resistor .....	82 K
Anode to Keep Alive Supply Voltage .....	180 Vdc
Cathode Current .....	400 ua max. 250 ua min.

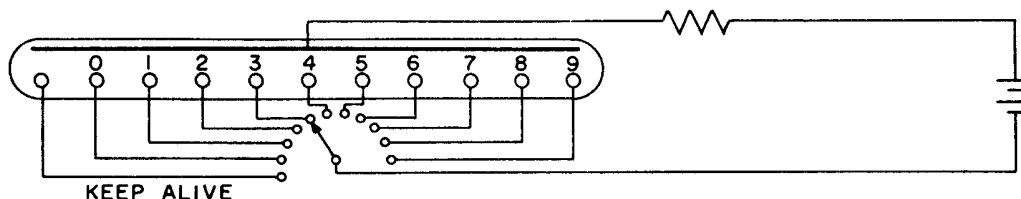
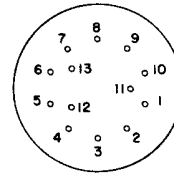
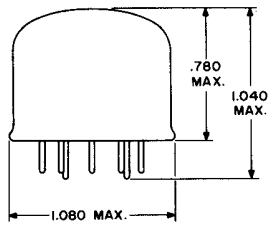
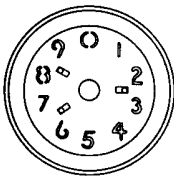


Figure 1. BASIC CIRCUIT

### NOTES

- The basic circuit shown in Figure 1 is used for test purposes only. Individual cathodes are checked for proper ionization with a 150 Vdc supply voltage; the keep alive electrode is checked with a supply voltage of 180 Vdc. For simultaneous ionization of several digits, the test circuit must be modified to contain individual 82K resistors in each cathode rather than a single 82K anode resistor. Use of the keep alive electrode is not required unless ionization times on the order of several microseconds are desired. When using the keep alive electrode, it must be connected through a 4.7 megohm resistor to a separate supply.



BOTTOM VIEW

PIN NO.	CHARACTER
1	2
2	1
3	0
4	9
5	8
6	7
7	6
8	5
9	4
10	3
11	ANODE
12	KEEP ALIVE
13	ANODE

Figure 2. OUTLINE DRAWING

Figure 3. PIN CONNECTIONS

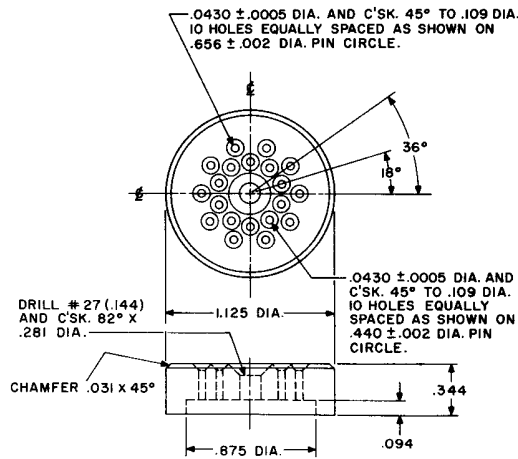
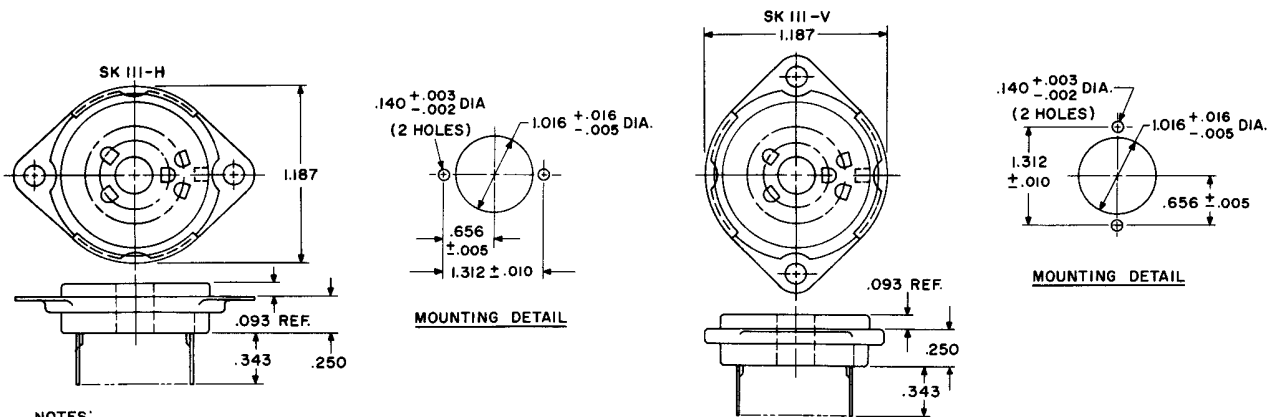


Figure 4. PIN STRAIGHTENER, LS-203



NOTES:

1. THE SADDLE IS PERMANENTLY FASTENED TO SOCKET.
2. SK III-H IS FOR HORIZONTAL MOUNTING.
3. SK III-V IS FOR VERTICAL MOUNTING.

Figure 5. GENERAL PURPOSE SOCKETS, SK-111-H AND SK-111-V

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