

Burroughs Corporation

ELECTRONIC COMPONENTS DIVISION

PLAINFIELD, NEW JERSEY

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NUMERICAL INDICATOR Engineering Data Report

8423

(B6091) Ultra Long Life NIXIE^R Tube

The 8423 (B6091) is a gas-filled, cold-cathode, super size numerical indicating tube containing a common anode and ten individual metallic cathodes. The cathodes are formed in the shape of numerals ("0" through "9"). This tube is intended for use as a direct, in-line, readout device.

MECHANICAL DATA

Overall Length 1.522 Max.
Seated Height 1.212 Max.
Bulb Diameter 1.350 Max.
Numeral Height 805 Nominal
Pin Connection See figure 3
Mounting Position. See Note 2
Weight 8 oz. nom.

ENVIRONMENTAL DATA

Temperature -65° C. to +85° C.
Altitude 70,000 ft.

ELECTRICAL DATA

Absolute Ratings

Ionization Voltage . . . 170 Vdc Max.
Supply Voltage 170 Vdc Min.
(Note 1)
Cathode Current 4.5 ma Max.

Test Conditions

Supply Voltage (E) . . . 170 Vdc
Series Resistor (R) . . . 6.8 K
Cathode Current (Ik)
(Minimum) 1.5
(Maximum) 4.0

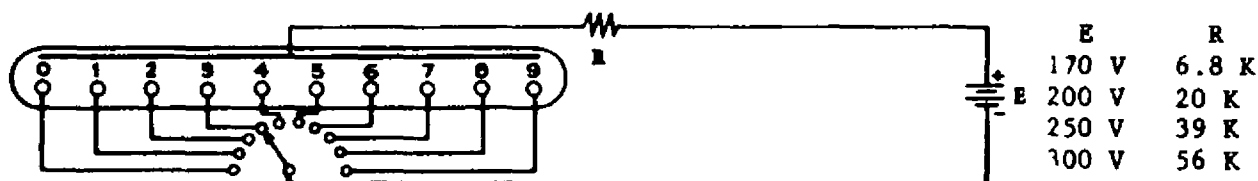


FIGURE 1. BASIC CIRCUIT

NOTES

1. The minimum supply voltage should be 170 volts. However, the use of the highest available voltage with the appropriate series resistor is recommended to maintain cathode current within the specified limits. A supply voltage of 200 volts or more is recommended to assure proper operation at the temperature extremes.

2. Tubes should be mounted with pins 1 and 8 in a vertical line with pin 8 at the top.

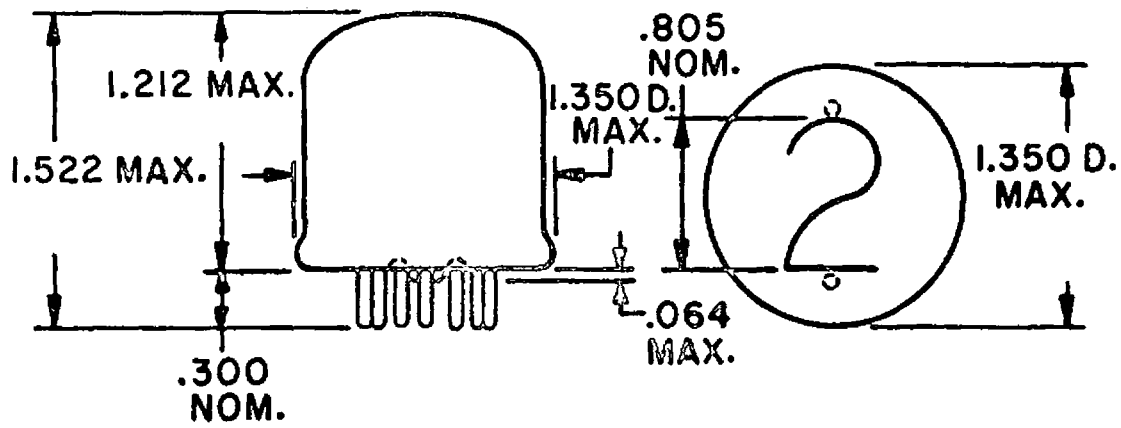
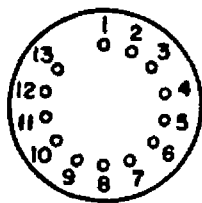


FIGURE 2. OUTLINE DRAWING



BOTTOM VIEW

PIN NO.	CHARACTERS
1	INTERNAL CONNECTION
2	ANODE
3	0
4	9
5	8
6	7
7	6
8	INTERNAL CONNECTION
9	5
10	4
11	3
12	2
13	1

FIGURE 3. PIN CONNECTIONS

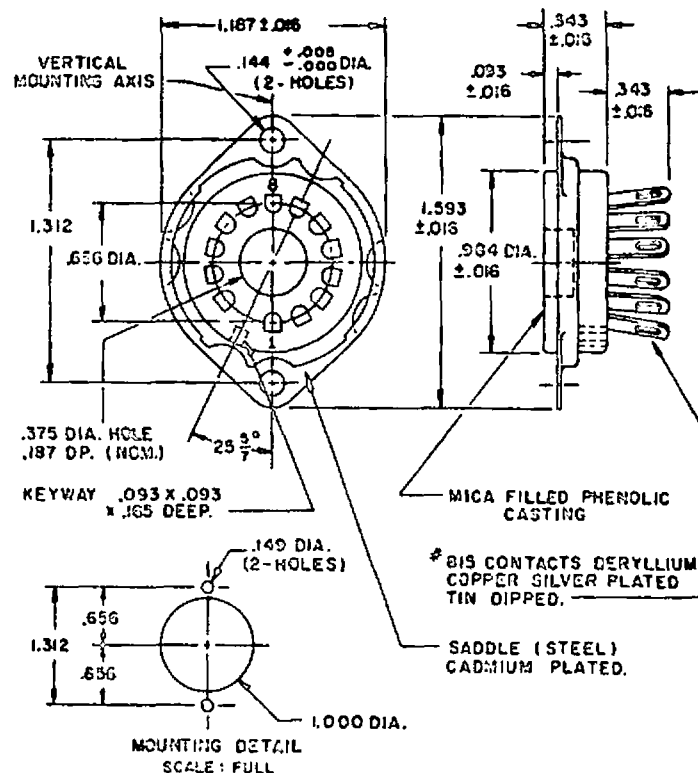


FIGURE 4. GENERAL PURPOSE SOCKET, SK-112