no. 105 November 1957

NL6844Aφ

NUMERICAL INDICATOR

engineering data report

6844A

(BD-302) NIXIE*

The 6844A (BD-302) is an improved version of the type 6844. This tube is a gas-filled, cold cathode, 10-digit ("O" through "9"), numerical indicator tube, having a common anode with a suppressor screen to minimize darkening of the viewing dome. This tube features a cup design providing a non-glare background. It is intended for use as a direct in-line read-out device.

MECHANICAL DATA
(SEE FIGURE 1)

Overall Length	1.380" Max.
Seated Height	1.125" Max.
Bulb Diameter	1.080" Max.
Envelope Connections	See Figure 2
Height of Numerals	0.610" Nom.
Numerical Design (Human Engineering)	See Figure 3
Socket, 13-Pin (#HSK-106 or HSK-112)	See Figure 4
Weight	1 oz. Max.
Mounting Position	See Note 1
Cathode(s)	Glow Discharge
Shock	350 G's (30° Hammer)
Vibration	10 G's, 60 Cps.
Temperature	—65° C. through +70° C., Note 2
Altitude	70,000 Feet

ELECTRICAL DATA

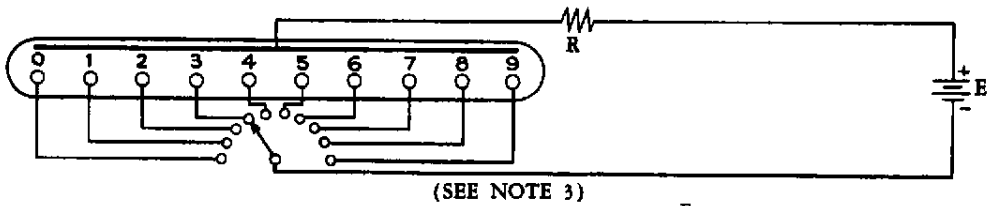
1. ABSOLUTE RATINGS:

Ionization Voltage	170 Vdc Minimum
Anode Current	
Peak	4.0 MA
Average	2.5 MA Max.
Individual Cathode Wattage	0.4 Watts Max.

2. TEST CONDITIONS: (See Typical Circuit)

Anode Supply Voltage	170 Vdc
Anode Series Resistor	15 K Ohms
Anode Current	1.5 MA Min. 2.5 MA Max.

TYPICAL CIRCUIT



(SEE NOTE 3)

RECOMMENDED OPERATING CONDITIONS	E	R
	170V	15K
	250V	47K
	300V	75K

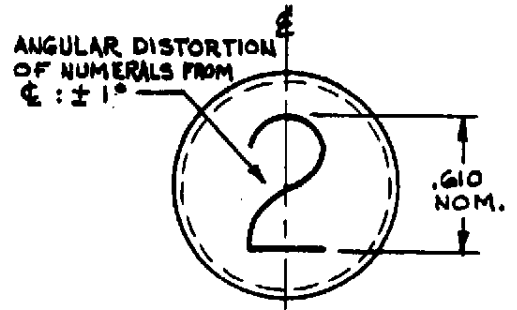
NOTES

(1) The tube socket is oriented with respect to the viewing position so that A — A', intersecting the center of Pins 1 and 8 is vertical with Pin 8 on top. This orients the numerals in the correct vertical position. The numbers are viewed through the top of the tube.

(2) From +30° C. to +70° C., no significant change in cathode current occurs. From +30° C. to —65° C. an increase in cathode (Up to 50%) may be expected.

(3) Recommend highest voltage available be selected with corresponding series resistor.

* Reg. Trade Mark.



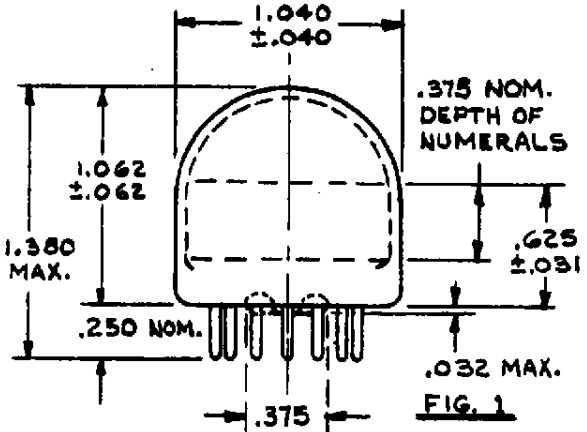


FIG. 1

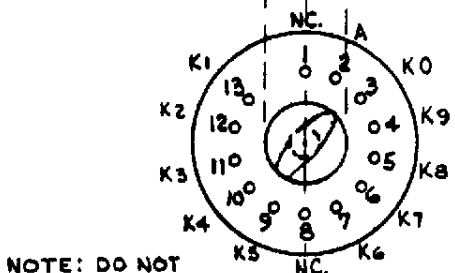
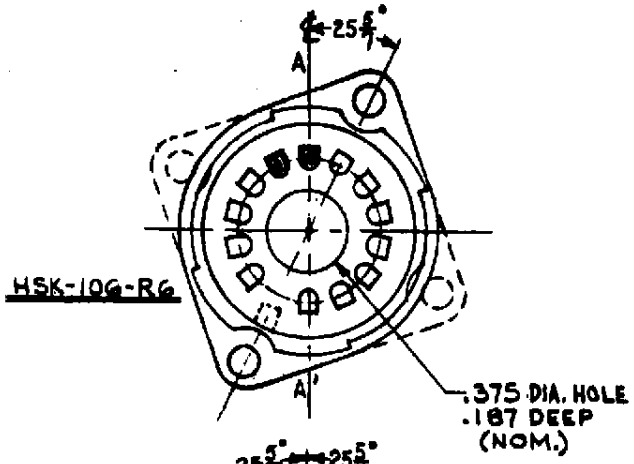


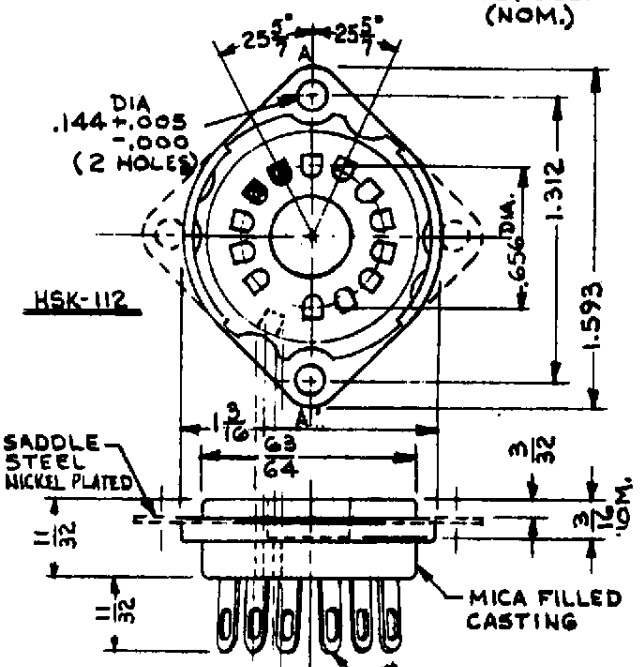
FIG. 2

1234567890

(REF. WADC TR 54-160 APPENDIX PAGE 102)

FIG. 3





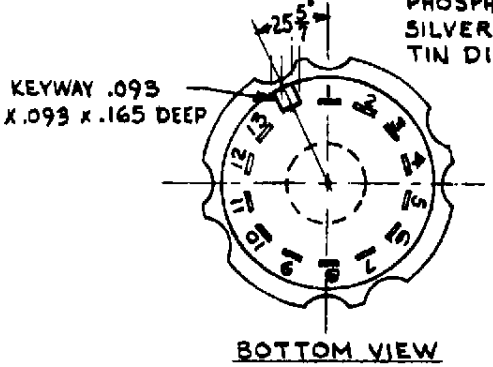


FIG. 4

Electronic Tube Division

BURROUGHS CORPORATION

Plainfield, New Jersey

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