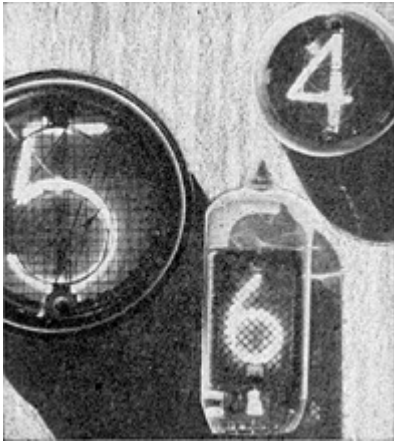


ITT / STC: Numerical Indicator Tubes.



Numerical Indicator Tubes
Types: GN4A, GN5A, GN6A
 (Suffix 'A' denotes clear bulb).

Note the background material: Could that really be genuine wood-effect Fablon?

Abbreviations: dp = decimal point, LH = left hand, RH = right hand. Char. = character, Rec. = recommended, Maint = maintenance. HT = High Tension (ie., B+), extn = extinction, avg = average, pk = peak.

STC Type No.	Bulb colour	Display	Char Height /inch	Min HT /V	Max extn. V	Pre-bias /V		Cathode current /mA				Base & view.
						Rec. min.	max	min	rec	max avg	max pk.	
GN4	Red	01234	0.6	170	100	74	100	1.5		3.0	10	B13B end view
GN4A	Clear	56789										
GN4P	Red	01234 56789 LH dp										
GS4	Red	A V Ω + -										
GS4A	Clear	% ~										

GN5	Red	01234 56789	1.0	200	100	75	110	2.5	5	10	B12A end view	
GN5A	Clear											
GN6	Red	01234 56789	0.55	200	115	75	110	1.25	2.5	9	Wire end. Side view	
GN6A	Clear											
GS6	Red	- + ~	0.35									
GNP-7	Red	01234 56789 LH dp RH dp	0.61	170	100	60	110	1.5 (dp 0.1)	2	3 (dp 0.5)	12 (dp 4)	Wire end. Side view
GNP-7A	Clear											
GNP-7H	Red			180	110	25	100				25 (dp 6)	
GNP-7AH	Clear											

Notes from the 1971 data sheets:

"

1a) The highest supply voltage available should be used with a suitable anode series resistor.

1b) For long life expectancy it is recommended that the discharge should be sequentially stepped from one cathode to another. This normally occurs in most conditions of operation, but where a static condition is encountered, it is desirable to step the discharge at least once in 100 hours.

1c) For a.c. operation it is recommended that a 240V r.m.s. supply be applied via a Q8/5 rectifier [miniature Selenium type: 340 PIV, 5mA] and a resistor A in series. A 390K resistor should be connected in parallel with the indicator tube and resistor A.

	GN4	GN5	GN6
Resistor A	33K	22K	39K

2) Pre-bias voltage is that between the operating and non-operating cathodes. At the lower values of pre-bias, current to the non-

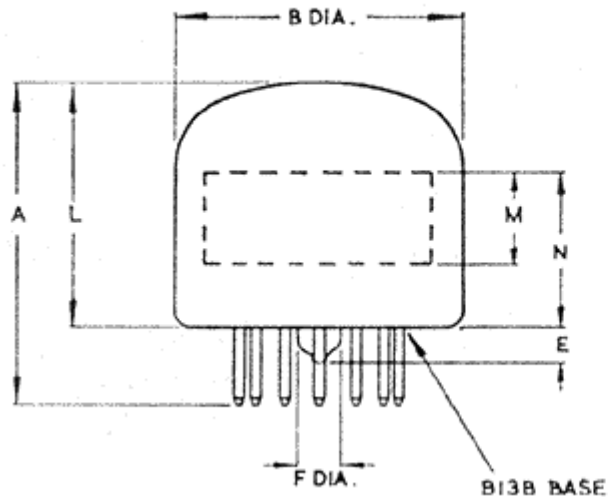
operating cathodes is increased and the legibility of the display will be impaired by background haze. A minimum pre-bias of 35V is recommended for the GNP-7H and GNP-7AH models and 80V for the GNP-7 and GNP-7A models. Although lower values are not injurious to the indicator tubes, the equipment designer should reach the best compromise between display quality and drive circuit cost. The maximum pre-bias voltage is set to avoid non-operating cathodes acting as auxiliary anodes.

3) Note: If an indicator tube is operated with the bulb temperature below 0°C, there will be an increased variation of characteristics and the life of the tube will be shortened.

For D.C. Operation where wide temperature variations occur, a high value of supply voltage, together with an anode series resistor of the appropriate value, should be used.

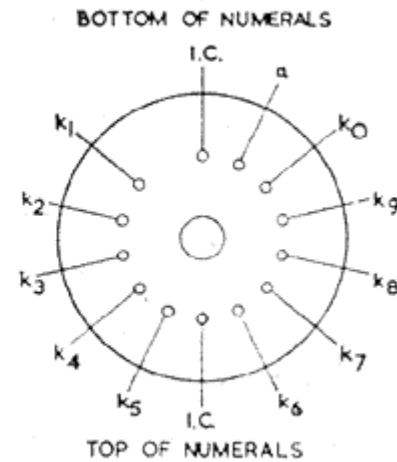
STC Mechanical Data:

GN-4 and GN-4A Outline

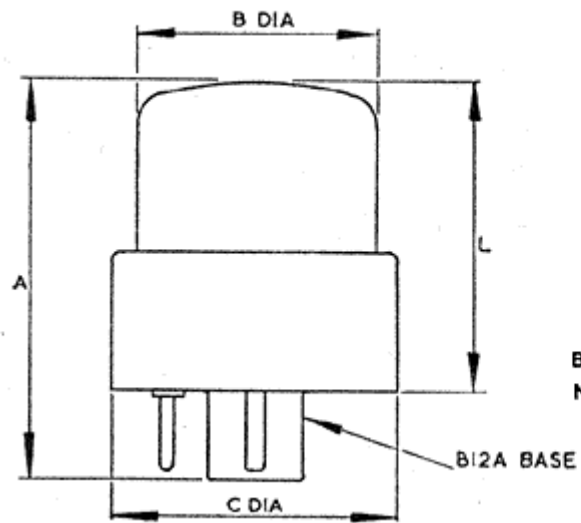


DIM.	MILLIMETRES
A	33,00 MAX.
B	28,50 ± 1,50
E	3,00 MAX.
F	4,50 MAX.
L	25,00 ± 1,50
M	9,5 APPROX
N	17,5 APPROX

BASIC DIMS. ARE IN INCHES

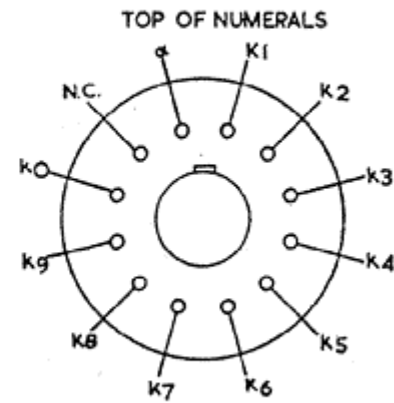


GN-5 and GN-5A Outline

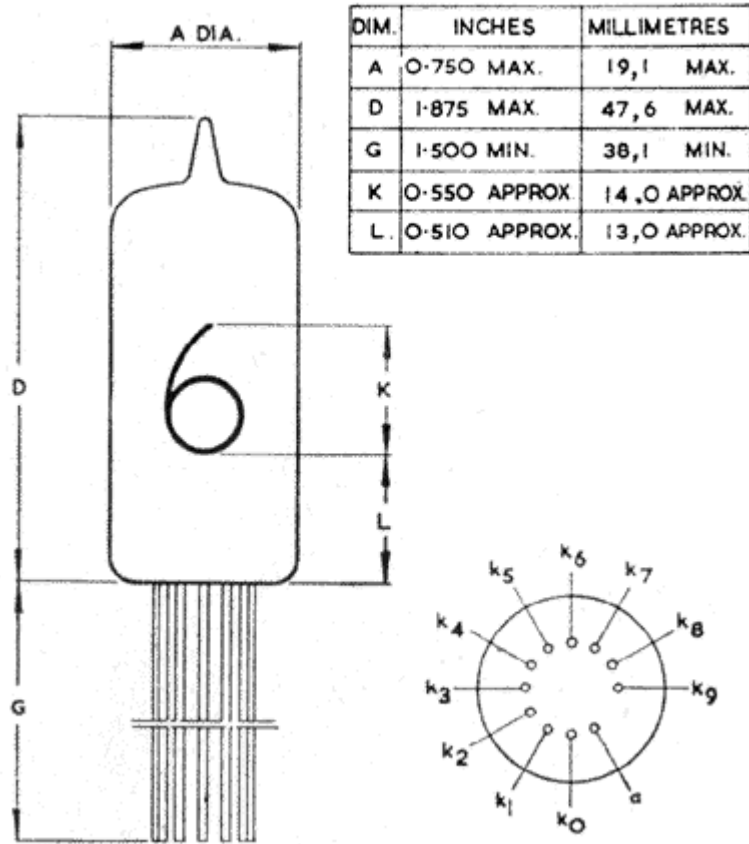


DIM	MILLIMETRES
A	61,9 MAX.
B	38,1 MIN. 40,9 MAX.
C	44,4 MAX.
L	41,3 MIN. 47,6 MAX.

BASIC DIMS ARE IN INCHES.
NET WEIGHT 2.2 OZ. 60g



GN-6 Outline



GS6 (Symbols + - ~): Same bulb dimensions as GN6. Display Area 0.35 x 0.35" (8.9 x 8.9mm).

GNP-7

Character Height: 15.5mm
Bulb Diameter: 19.1mm max.
Weight: 7.6g (0.24 oz.)
Operating temp range: -20 to +70°C

