

# Dieter's Nixie Tube Data Archive

This file is a part of Dieter's Nixie- and display tubes data archive

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	ETL datasheet: GR12G and GR12H tube
Display devices in this document	GR12G, GR12H

~~CONFIDENTIAL DATA SHEET~~  
**MAINTENANCE TYPE ONLY**

**\* DIGITRONS -12 Character Side-Viewing  
Cold-Cathode Letter Tubes**

**GR 12 G  
GR 12 H**

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GR12G Tube contains the letters A to L inclusive

GR12H Tube contains the letters L to X excluding P and Q  
but additionally including E.

**Limit Ratings**

Maximum cathode current:-

Letter I	5 mA
Letters L and T	5.5 mA
Letters J and F	7.5 mA
Remaining letters	9.0 mA

Minimum voltage necessary to ensure breakdown 220V

**Characteristics**

Nominal running voltage:-

Letter I at 4.5 mA	170V
Letters L and T at 5.0 mA	175V
Letters J and F at 6.25 mA	185V
Remaining letters at 7.5 mA	175V

A cathode left floating will assume some potential between that of the anode and the glowing cathode.

It should be noted that non-glowing cathodes must not be returned to a bias rail, but should be left disconnected.

**Recommended Operating Conditions**

D.C. operation

Anode Supply Voltage -  $R_a = 10k\Omega$  250V

A.C. operation

(Unsmoothed half-wave rectified 50 c.p.s. A.C.)

Anode Supply Voltage -  $R_a = 12k\Omega$  200-220V r.m.s.

$R_a = 18k\Omega$  220-250V r.m.s.

Cathode equalizing resistors ( $V_a = 250V$  only).

Letter I	8.2k $\Omega$
Letters L and T	4.7k $\Omega$

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\* Registered Trade Mark



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**TENTATIVE DATA SHEET**  
**MAINTENANCE TYPE ONLY**

**GR 12 G**  
**GR 12 H**

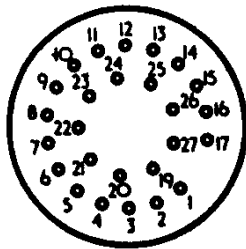
**DIGITRONS - 12 Character Side-Viewing**  
**Cold-Cathode Letter Tubes**

**Mechanical Data**

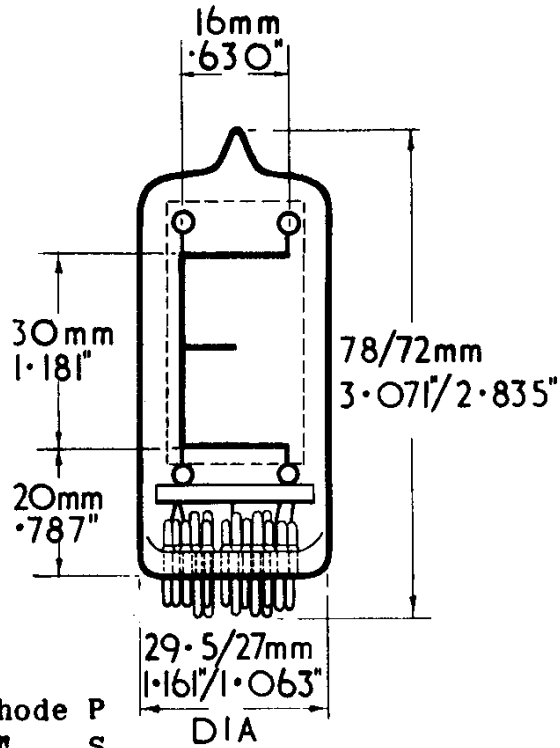
Mounting Position  
 Base  
 Socket

Any  
 B26A  
 B17, B26A or B27A

Base Connections  
 (Underside view)



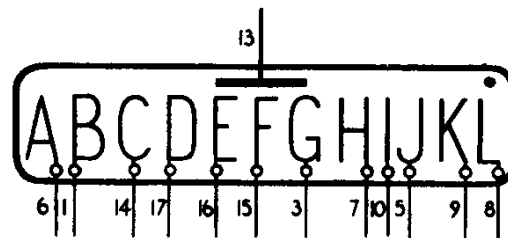
↑  
**FRONT**



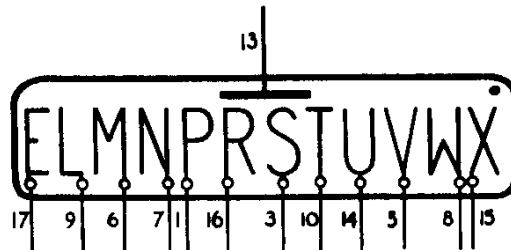
**G12G**

**GR12H**

Pin 1	Cathode B	Pin 1	Cathode P
3	" G	3	" S
5	" J	5	" V
6	" A	6	" M
7	" H	7	" N
8	" L	8	" W
9	" K	9	" L
10	" I	10	" T
13	Anode	13	Anode
14	Cathode C	14	Cathode U
15	" F	15	" X
16	" E	16	" R
17	" D	17	" E



**GR 12 G**



**GR 12 H**

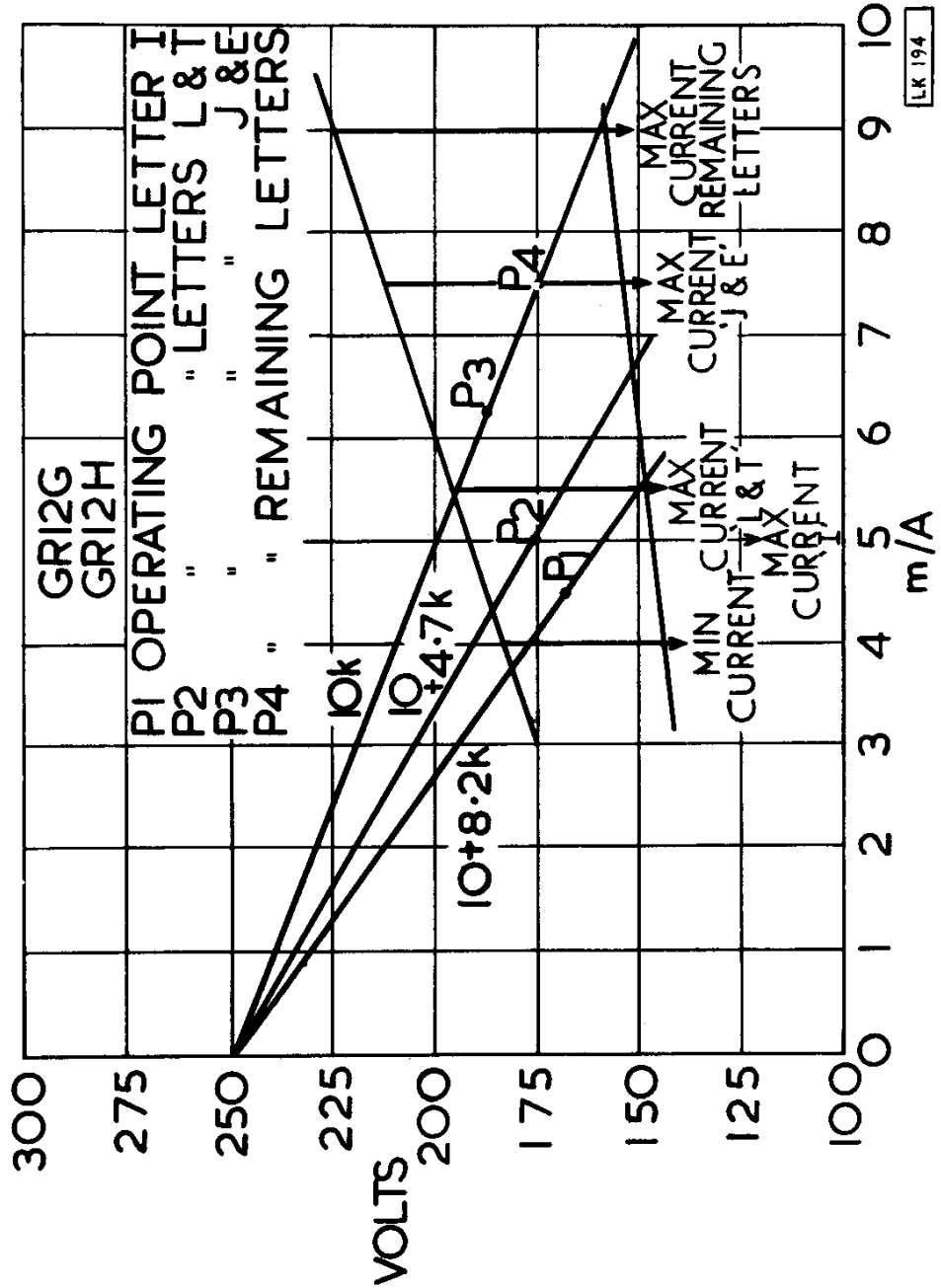
**Note: Pins 2, 4, 11 and 12 must be left unconnected.**



**MAINTENANCE TYPE ONLY**

\* DIGITRONS -12 Character Side-Viewing Cold-Cathode Letter Tubes

**GR 12 G**  
**GR 12 H**



Operating Characteristics

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