

# Scale-of-ten Counter Tube For Single-pulse Operation

**GC 10 D**  
(CV.5143)

## Limit Ratings

Maximum counting rate : any wave shape	20 kp/s
Maximum total anode current	1.2 mA
Minimum total anode current	700 $\mu$ A
Minimum anode supply voltage (normal room illumination)	420 V
Maximum potential difference between guides and cathodes	180 V
The output cathode must not rise above the potential of the commoned cathodes by <b>more than 10 volts</b> , and may be made more than 30 volts negative only when resetting.	

## Characteristics

Running voltage at 800 $\mu$ A	215 V approx.
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## Recommended Operating Conditions

*Anode current	800 $\mu$ A
Output cathode load	82 k $\Omega$
Forced resetting pulse	-140 V
Random pulse drive-amplitude	- (144 V + 50 V) - 12 V
**Random pulse drive-duration	25 $\mu$ S min.
**Random pulse drive-quiescent time	25 $\mu$ S min.
Random pulse drive—guide bias	+72 $\pm$ 12 V
Sine wave drive-amplitude	65—100 V r.m.s.
Sine wave drive—guide bias	+12 $\pm$ 2 V

\* The required anode current may be obtained from a 475 V supply via a 330 k $\Omega$  resistor.

Note—To reduce the effect of stray capacity to a minimum it is essential that the anode resistor be wired not more than  $\frac{1}{4}$ " (or 5 mm.) from tag 4 on the valve holder.

\*\* The maximum is limited by the repetition rate.



**Mechanical Data**

**Mounting position**

Any.

For visual indication, the tube is viewed through the dome of the bulb.

**Alignment**

Cathode "O" is aligned with pin No. 6 to an accuracy of  $\pm 12^\circ$ .

**Weight**

44 g (nominal).

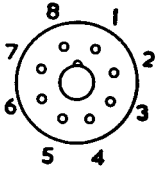
**Escutcheons**

N.78211 Bakelite or  
N.79368 Brass

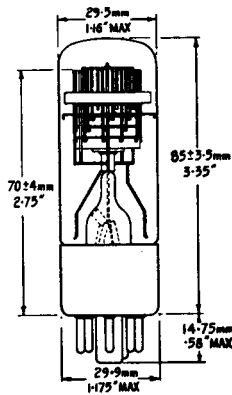
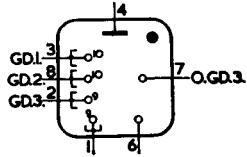
**Base**

I.O.

**Base Connections  
(underside view)**

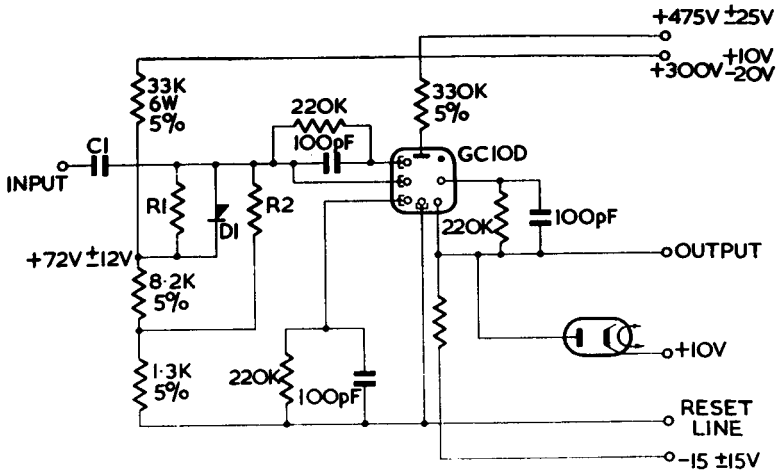


- Pin 1 Common cathodes  
2 3rd Guides  
3 1st Guides  
4 Anode  
5 —  
6 Output cathode  
7 Output 3rd Guide  
8 2nd Guides



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CV.5143



LK122

Drive	Input		C1	R1	R2	D1
	Duration	Amplitude				
Random pulse	> 25 $\mu$ S	145 +50 V -12 V	.02 $\mu$ F	1M $\Omega$	Not reqd.	Q3/3
Sine wave	—	65—100 V r.m.s.	To suit lowest frequency	Not reqd.	100k $\Omega$	Not reqd.

**Sine-wave or random-pulse drive for GC10D**



