## Bi-directional 10-way Computing Tube with Intermediate Outputs

### **Limit Ratings**

Maximum counting rate: sine wave and rect-	
angular pulses	4,000 p.p.s.
Maximum total anode current	550 μA
Minimum total anode current	250 μΑ
Minimum anode supply voltage	
(normal room illumination)	350 V
Maximum potential difference between guides and	
cathodes	1 <del>4</del> 0 V
Maximum output cathode load	<b>150</b> kΩ

#### **Characteristics**

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Running voltage at 300 µA

191 V approx.

#### **Recommended Operating Conditions**

*Anode current		310 $\mu$ A $\pm$ 20%
**Guide bias	+20 V	+40 V
Bias on output cathode resistor	_20 V	Zero
Resultant pulse	40 V	40 V
Forced resetting pulse		—120 V
Double pulse drive-amplitude		$-80 \text{ V} \pm 10 \text{ V}$
Double pulse drive-durations		60 μS
Integrated pulse drive-amplitude		$-145 \text{ V} \pm 15 \text{ V}$
Integrated pulse drive-duration		
Sine wave drive-amplitude		40—70 V r.m.s.

\* The required anode current may be obtained from a 475 V supply via a 820  $k\Omega$  resistor.

\*\* This does not apply in the case of the sine wave drive.

The following table shows the number of input pulses for which outputs may be obtained for both directions of drive and with each cathode used as the zero electrode.

Number of pulses to give output from :-

Α	В	С	D	
0 0 9 1 6 4 4	1 9 0 7 3 5	4 6 3 7 0 0 8 2	6 4 5 5 2 8 0	Clockwise, A zero Anti-clockwise, A zero Clockwise, B zero Anti-clockwise, B zero Clockwise, C zero Anti-clockwise, C zero Clockwise, D zero Anti-clockwise, D zero

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#### Mechanical Data

Mounting position

Any.

For visual indication the tube is viewed through the dome of the

bulb.

Alignment

Cathode "B" is aligned with pin

I-I6 MAX

72-5±4 2-85°

No. 6 to an accuracy of  $\pm$  12°.

Weight

43 g (nominal).

**Escutcheons** 

N.78211 Bakelite, or

N.79368 Brass.

Base

I.O.

Base Connections (underside view)



Pin 1 Common cathodes

2 Cathode "D"

3 1st Guides

4 Anode

5 2nd Guides

6 Cathode "A" 7 Cathode "B"





