



## T. R. CELL

A very broad band power limiting cell for use in Radar systems as a unit to provide protection for crystals against random signals.

### PHYSICAL DATA.

Dimensions	...	See outline drawing overleaf.
Waveguide	...	W.G.16 (0.4" x 0.9").
Primer Terminal	...	CT.1.
Mounting Position	...	Any.

FREQUENCY RANGE ... 7000 to 11500 Mc/s.

### RATINGS.

Max. Line Power level	...	100 watts.
*Max. Primer Supply Voltage	...	-1500 volts.
Min. Primer Supply Voltage	...	-950 volts.
*Max. Primer Current	...	150 $\mu$ A.
*Min. Primer Current	...	100 $\mu$ A.
Ambient Temperature Range (non-operating)	...	-40 to +100 °C.

### CHARACTERISTICS.

Low Power Level.	Average. Limit.	
Insertion Loss :-		
7400- 7900 Mc/s.	... 0.6	1.2 dB.
8000- 9900 Mc/s.	... 0.4	0.9 dB.
10000-10600 Mc/s.	... 0.3	0.8 dB.
7000-11500 Mc/s.	...	4 dB.
High Power Level.		
Breakdown Power	... 150	300 mW.
Leakage at 40kW. peak :-		
Total Leakage Power	... 60	— mW.
Spike Leakage Energy	... 0.13	— ergs/pulse.
†Recovery Time (to 6dB. loss)	...	50 $\mu$ Sec.
Primer Characteristics.		
Primer Operating Voltage	... 190	170 to 240 } volts.

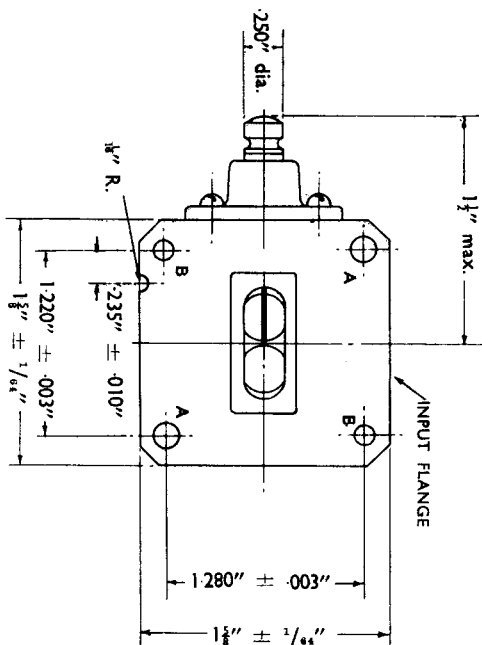
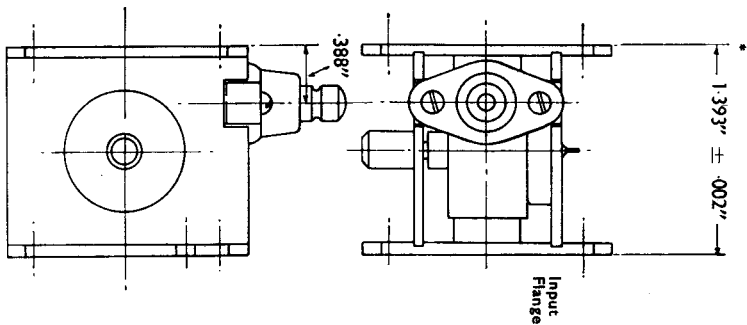
\*A suitable resistor should be connected in series with the electrode to limit the current to between 100 and 150 micro-amperes. At least 1 megohm should be connected directly to the primer electrode terminal.

†Measured at 10 watts.



**NF41**

\*Flanges are flat and parallel within these limits



A — 2 holes in each flange: .170" dia. ± .002" coaxial to each other  
 B — 2 holes in each flange: .150" dia. ± .002" coaxial to each other  
 The holes are positioned as shown and are on a 1.768" ± .002" P.C.D.

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