# FERRANTI

## T.R. CELL

**QF50**

Type QF50 is a tuneable T-R Cell for operation in the Q band.

PHYSICAL DIMENSIONS.

| | | |
|---|---|---|
| Max. Overall Height ... | ... | 92 mm. (3·625in.). |
| Max. Width over Tuner | ... | 31 mm. (1·220in.). |
| Primer Connection Caps | ... | Type C.T.I. (0.25in. dia.). |

For other dimensions see drawings overleaf.

CHARACTERISTICS.

**Low Level Characteristics.**

| | |
|---|---|
| Loaded 'Q' ... ... ... | 150 max. |
| V.S.W.R. ... ... ... ... | 2 max. |
| Tuning Range ... ... | 8·4 to 8·8 mm. |
| Insertion Loss ... ... ... | 2 db. max. |

**High Power Characteristics.**

| | | |
|---|---|---|
| Nominal Peak Power | ... ... | 20 kW. |
| Nominal Mean Power | ... ... | 8 watts. |
| Leakage | Spike ... ... ... | 0·045 e/p. max. |
| | Flat ... ... ... | 25 mW. max. |
| Recovery Time to 3 db. | ... ... | 2 μsecs. max* |
| Recovery Time to 1 db. | ... ... | 4 μsecs. max. |

**Primer Characteristics.**

| | |
|---|---|
| Primer Supply Voltage ... ... | –2 kV. |
| *Primer Current ..... ..... | 50 to 75 μamps. |

*The primer electrodes should be fed from a source maintained at a negative potential of 2,000 volts DC. The primer current should be restricted to a value between 50 and 75 μA. by employing suitable limiting resistors. Some of this resistance may be located in the power supply but at least 2 megohms must be connected directly on to each primer terminal to prevent relaxation oscillations.

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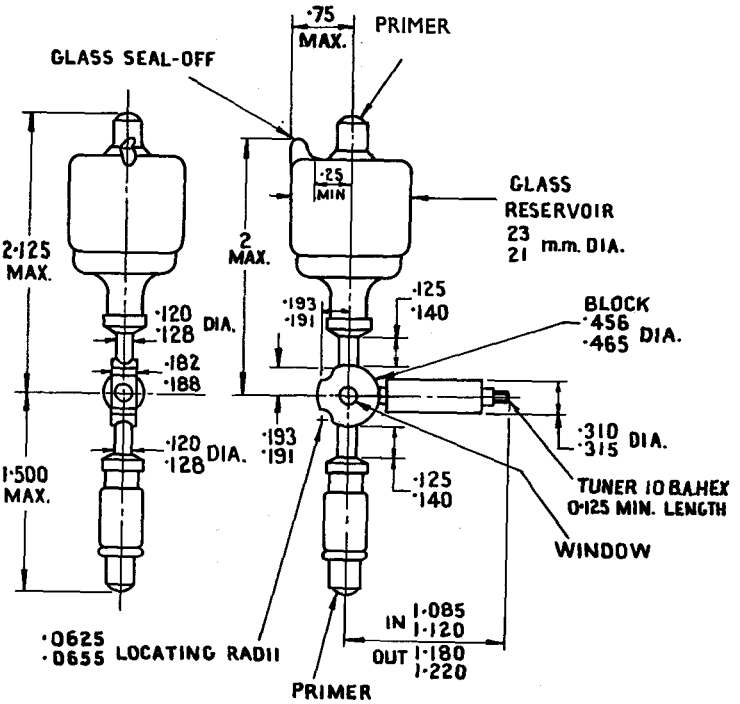


Note:

Maximum displacement of tuning mechanism is 2° with cell held against either face and held on locating radii.