

**S-BAND
TR TUBE****Service Type CV5990**

The data should be read in conjunction with the Duplexer Device Preamble.

DESCRIPTION

Broad-band single primer TR tube.

CHARACTERISTICS

| | | |
|---|------------------------|----------|
| Frequency range | 3000 to 3050 | MHz |
| V.S.W.R. (see note 1) | 1.2:1 | max |
| Maximum leakage: | | |
| spike energy (see note 2) | 25 | nJ/pulse |
| total power (see note 2) | 100 | mW |
| low power | 500 | mW |
| Recovery period to -3db (see note 2) | 25 | μs max |
| Insertion loss (see note 3) | 1.0 | db max |
| Arc loss (see note 2) | 0.8 | db max |
| Position of short circuit (see notes 2 and 4) | 0.062 inch (1.6mm) nom | |

MAXIMUM AND MINIMUM RATINGS

| | Min | Max | |
|--|-----|------|--------------------|
| Transmitter power (peak) | - | 1250 | kW |
| Primer supply voltage (negative) (see note 5) | 900 | 1100 | V |
| Primer current | 70 | 150 | μA |
| Waveguide pressure | - | 300 | kN/m ² |
| | | 44 | lb/in ² |
| Ambient temperature (non-operating) | -40 | +100 | °C |

GENERAL

| | |
|------------------------------|---|
| Overall dimensions | 5.906 x 5.906 x 5.083 inches max 150.0 x 150.0 x 129.1mm max |
| Waveguide size | no. 10 (2.840 x 1.340 inches internal) |
| Coupler | NATO S.N. 5985-99-083-1560 |
| Finish | flange faces tin or silver plated |
| Mounting position | any |
| Net weight | 4 1/4 pounds (1.9kg) approx |

NOTES

1. Measured at a power level below 10mW over the frequency range.
2. Measured at 1.0MW peak power, 1.0 μ s pulse length and 0.001 duty factor.
3. Measured at a power level below 10mW at the centre of the frequency range.
4. Distance of the effective r.f. short circuit behind front flange.
5. The primer supply voltage must be applied at least 5 seconds before the tube is required to operate. The primer current must be limited by a series resistance of 5.5M Ω , of which at least 0.5M Ω must be adjacent to the primer terminal.

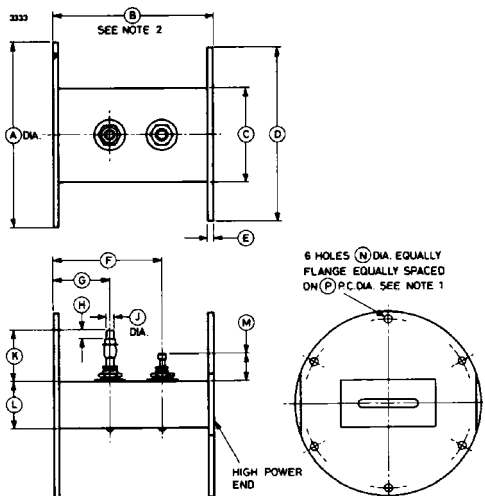


Outline Dimensions (All dimensions without limits are nominal)

| Ref | Inches | Millimetres |
|-----|-------------------|------------------|
| A | 5.875 \pm 0.016 | 149.2 \pm 0.4 |
| B | 5.073 \pm 0.010 | 128.9 \pm 0.3 |
| C | 3.000 \pm 0.031 | 76.20 \pm 0.79 |
| D | 5.500 \pm 0.031 | 139.7 \pm 0.8 |
| E | 0.156 \pm 0.031 | 3.96 \pm 0.79 |
| F | 3.400 | 86.36 |
| G | 1.750 | 44.45 |
| H | 0.250 | 6.35 |
| J | 0.250 | 6.35 |
| K | 1.625 max | 41.28 max |
| L | 1.500 \pm 0.031 | 38.10 \pm 0.79 |
| M | 0.875 max | 22.23 max |
| N | 0.264 max | 6.70 max |
| | 0.257 min | 6.53 min |
| P | 5.375 | 136.5 |

Millimetre dimensions have been derived from inches except dimension N.

OUTLINE



Outline Notes

1. The flange holes fit a gauge with six parallel pegs, each 0.250 inch (6.35mm) diameter, equally spaced on 5.375 inch (136.5mm) pitch circle diameter. The corresponding holes of the flanges are in alignment within 0.020 inch (0.51mm).
2. The two flange faces are flat and parallel within 0.005 inch (0.13mm) within a circle of 5.125 inch (130.2mm) diameter concentric with the pitch circle of the flange holes.