

Installing and Operating the 14121D2 and 14121HD2 *ACTIVE FILM Multiplier*TM

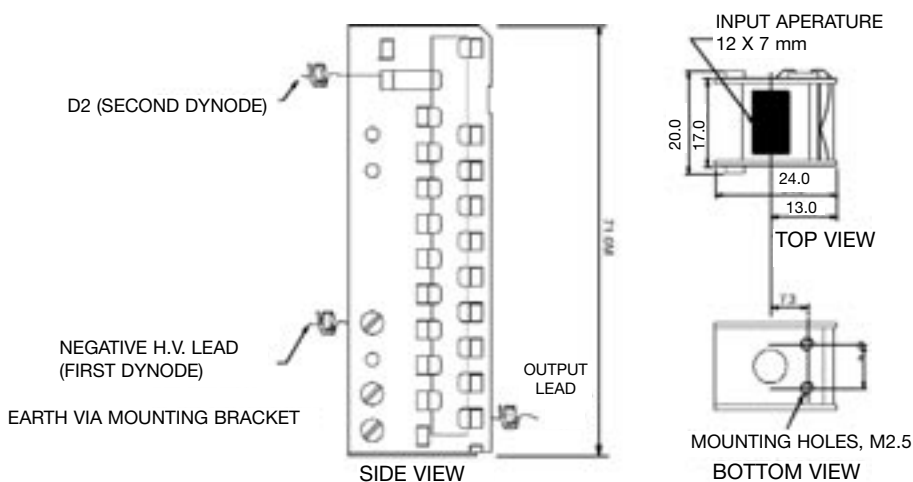
1. Please note: These multipliers are shipped with a protective cover over the input aperture. **Carefully REMOVE COVER** during installation and avoid contact with the underlying delicate aperture grid.
2. There are 4 electrical connections to the multiplier:
 - i) **-HV** (first dynode which is isolated from the rest of the multiplier)
 - ii) **D2** (second dynode and includes the resistor required between the first and second dynodes)
 - iii) **Signal output**
 - iv) **Earth** via the mounting bracket (refer to the attached diagram)

For normal operation of the multiplier, the -HV and D2 leads are electrically connected together.

For Faraday cup operation, disconnect -HV from D2 and connect electrometer to the -HV lead

Additional Notes for Installation and Operation of High Current 14121H version *ACTIVE FILM Multipliers*

1. The high voltage supply used in conjunction with a high current (“H”) version *ACTIVE FILM Multiplier* must be capable of delivering 1 to 1.5 mA of current to supply the multiplier’s low internal resistance.
2. As an “H” version multiplier dissipates several watts of power, a thermally conductive path must be maintained between the multiplier’s mounting and the chamber walls.
3. To avoid noise due to out-gassing of adsorbed water vapour, it is recommended that “H” version multipliers be exposed to vacuum for 16 hours before initial operation and the applied voltage kept below 2 kV for the initial two hours of operation after exposure to air.



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