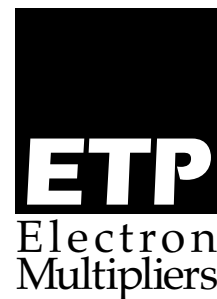


Active Film Multiplier™ FOR THE PERKIN-ELMER QMass Mass Spectrometer



PRODUCT DATA

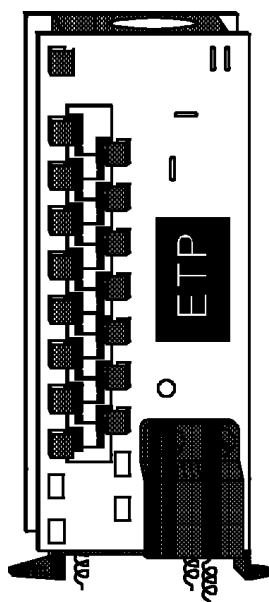
The *ACTIVE FILM Multiplier™* model 14532 is specifically designed for application in the Perkin-Elmer QMass mass spectrometer. The 14532 is a direct "plug-in" replacement electron multiplier for the QMass GC-MS and is fully compatible with Perkin-Elmer system hardware and software.

ACTIVE FILM Multipliers™ are a new development in multiplier technology that incorporates totally air-stable "ACTIVE FILM" materials into a discrete-dynode multiplier design to produce an exceptionally sensitive ion detector with long operating life and excellent air stability. ACTIVE FILM Multipliers give a combination of performance and durability unsurpassed by any other type of electron multiplier detector.

ACTIVE FILM Multipliers™ have higher gain than alternative multipliers resulting in consistently lower "Auto-tune" voltages. Their long operating lifetime means less frequent multiplier replacement and reduced instrument down-time.

**ACTIVE FILM Multiplier
Part No. 14532**

Arrives ready to install in your
PERKIN-ELMER QMass GC-MS.



INSTRUMENT:

**Perkin-Elmer
QMass**

APPLICATION:

GC-MS

MULTIPLIER PART NO.:

14532

- "Plug-in" Compatible
- High Sensitivity
- Low Noise
- High Gain
- Long Life
- Stable in air
- Bakeable to 350°C

ACTIVE FILM TECHNOLOGY

ACTIVE FILM Multipliers are a completely new type of electron multiplier detector for mass spectrometry and represent the latest development in electron multiplier technology.

ACTIVE FILM Multipliers combine the wide dynamic range and longevity of discrete-dynode multipliers with the compact size and air stability of continuous-dynode multipliers.

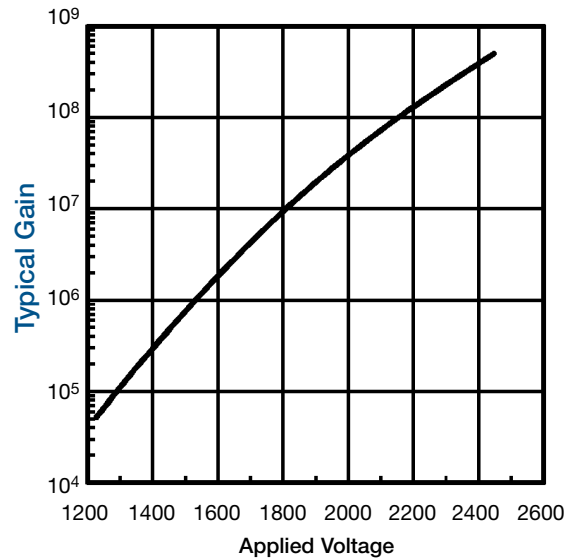
ACTIVE FILM Multipliers use a new totally air-stable dynode material in a unique and highly efficient discrete-dynode structure to produce an ion detector with performance and long operating lifetime unsurpassed by pre-existing electron multiplier detectors.

APPLICATION NOTES

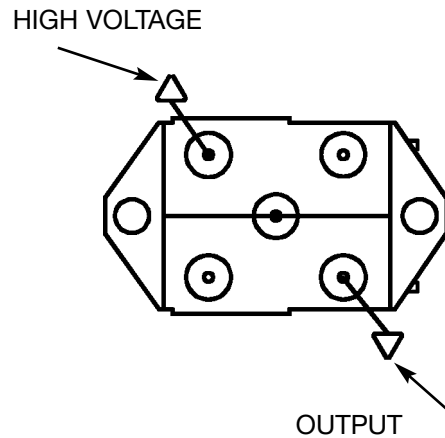
The multiplier mounting bracket and over-all mechanical dimensions of the 14532 ACTIVE FILM Multiplier are designed for easy installation into the Perkin-Elmer QMass GC-MS.

There are two electrical connections to be made to properly install the 14532. Electrical connections are made via the two leads extending from the base of the multiplier.

The positions of the three connection leads, 1) high voltage and 2) the signal output, are shown in the diagram opposite. (Ground is connected via the mounting bracket). Detailed instructions are supplied with the multiplier.



Typical gain curve of the 14532



Bottom view of 14532 showing connection lead positions

SPECIFICATIONS

Replacement multiplier for Perkin-Elmer Mass Spectrometer model number:

Typical voltage to achieve 1×10^5 gain

Maximum Dark Current at 2.5kV

Maximum bake-out temperature in vacuum

Number of dynodes

Total internal resistance (HV lead to ground)

14532

QMass

1.3 kV

<1 picoamp

350°C

18

24.9 MΩ



Electron
Multipliers
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