



Mass Spectrometry based Process Monitoring Systems

AERO VAC Watchman Process Monitor Systems



“Integration of the AERO VAC Odyssey Magnetic Sector Mass Spectrometer with a pressure reduction inlet allows process monitoring and vacuum diagnostics with all the inherent sensitivity and stability advantages of the AERO VAC instrument”



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WATCHMAN Process Monitor

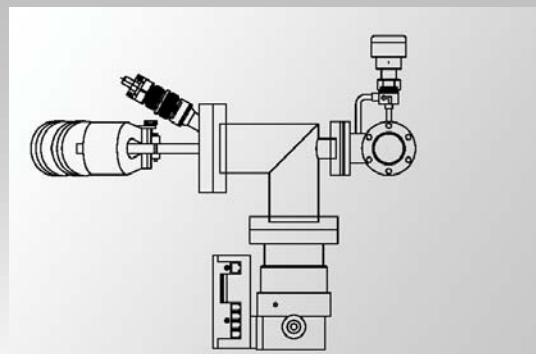
Overview

The drive for ever more stringent production standards and efficiencies in coating processes increases the need to monitor system conditions before and during the coating process. For a system to be of value it should be able to carry out Leak Detection functions AND evaluate the quality of vacuum (checking for contaminants) which can adversely affect the product quality.

VTI's Coating System Adapter assembly allows the Odyssey Residual Gas Analyzer (RGA) to monitor coating chamber conditions over a pressure range from 100 torr to high vacuum.

This is achieved by implementing a dual valve arrangement providing direct connection when coating chambers are below 1×10^{-4} torr and by-pass sampling above this pressure.

The Odyssey RGA can then be used for vacuum quality measurement purposes before and during the coating process ensuring optimum coating conditions.



Specifications

Operating Pressure Ranges

Direct Valve open

Below 10^{-4} torr

By-Pass valve

100 torr to 10^{-4} torr.

Valve Actuation

Direct Valve

Manual, Electrical or Pneumatic

By-Pass / Leak Valve

Manual or automatic to pre-set position.

Protection

Pressure protection by Cold Cathode Gauge controller provides RGA filament interlock and closes direct valve if system pressure is too high (on optional automatically actuated systems).

RGA Specifications

See separate data sheets on Odyssey RGA (**ODY-DATA**) and Encounter (**ENC-DATA**) software details.

Ordering Information

Part Numbers:

Manual system

AV-WAT-1

Automatic system with gauging

AV-WAT-3

Automatic (Air) system

AV-WAT-2

(Operating Pressure range to be specified)



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