

Piezoelectric Gas Doser - PLV1000

Remotely controlled gas doser for UHV applications

The PLV1000

The piezoelectric leak valves from Oxford Applied Research are high quality all-metal (no elastomers) UHV compatible leak valves which are actuated by means of an internal piezoelectric crystal stack. Application of a voltage to the stack causes it to extend thereby lifting a ceramic plunger which, unenergised, is sealed to the valve seat by a high tension spring.

Applications

- Gas Dosing
- MBE gas introduction
- Surface Science
- Gas pulsing
- Gas ion guns
- System pressure control

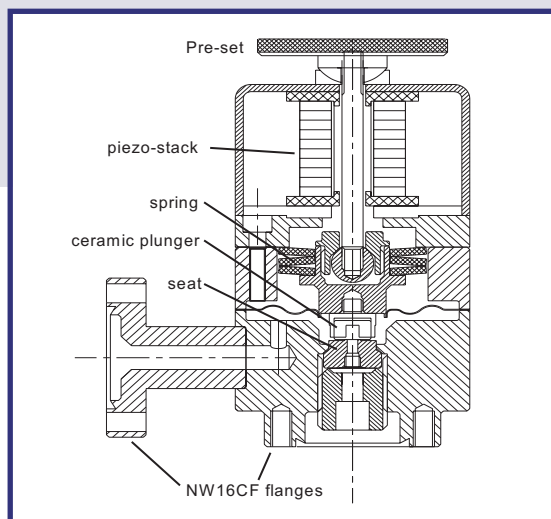
Features

- Remote control
- All metal (no elastomers)
- UHV compatible
- External pulsing trigger
- Ultra-fine control
- Computer control

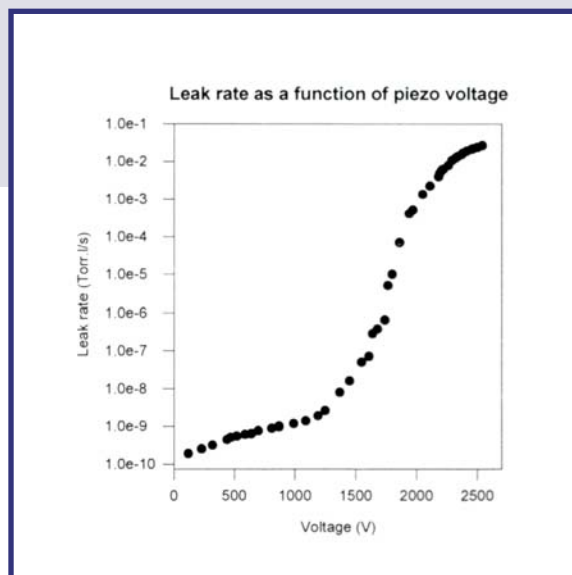


PLV1000

Specification



The linear extension of the piezo-stack with voltage preserves the classic relationship between leak rate and old-style manual control knob position, as shown in the adjacent graph. Greatest control is provided, where it is needed most, in the extremely low flow regime.



Note: Measurements made on former 0-3kV model. The same range is accomplished with 0-1kV using the current model.

Specification - PLV1000

Mounting	NW16CF (inlet and outlet), VCR inlet on request
Stack voltage	0-1000V
Gas leak rate	5×10^{-10} to 5×10^{-2} torr.l.s ⁻¹
Minimum pulse duration	20ms
Operation temperature	Ambient
Power-off state	Closed

Options

- PC interface for serial communication

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