



# Hot Ion Vacuum Gauges

From atmosphere  
to ultrahigh vacuum with one gauge

# The Hot Ion Family Wide Range Vacuum Gauge

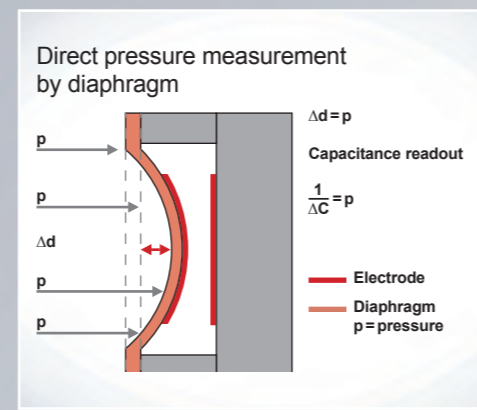


The INFICON Hot Ion Family of vacuum gauges combines the advantages of up to three different technologies in a single compact economic package to measure process and base pressure from  $5 \times 10^{-10}$  to 1500 mbar ( $3.75 \times 10^{-10}$  to 1125 Torr). Combining technologies reduces the complexity of installation, setup, and integration, thus reducing cost and valuable tool space. For applications that require stand alone hot ion gauge technology, INFICON offers the single technology Bayard Alpert Hot Ion Gauge BAG402-S. The supported single or dual filament options offer superior accuracy and longevity. A broad range of interface options enable simple system integration.

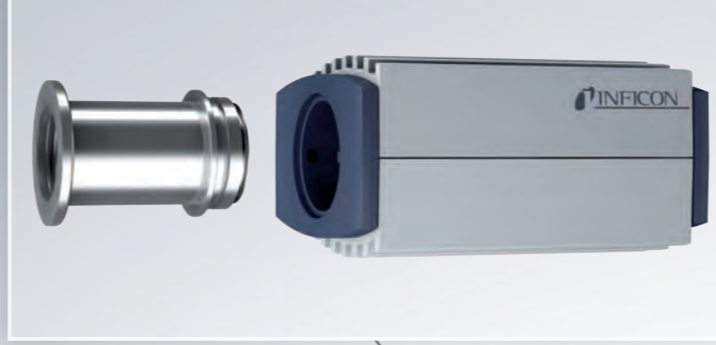
### Typical applications

- Pressure measurement for semiconductor process, transfer, and load lock chambers
- General vacuum measurement and control in the low to ultrahigh vacuum range
- Physical vapor deposition (PVD) in industrial coating
- Sputter application in semiconductor manufacturing, electronic and media industry (HPG400)

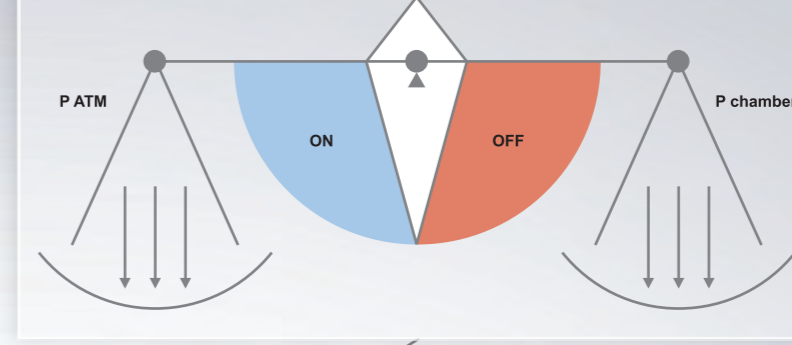
### CDG working principle



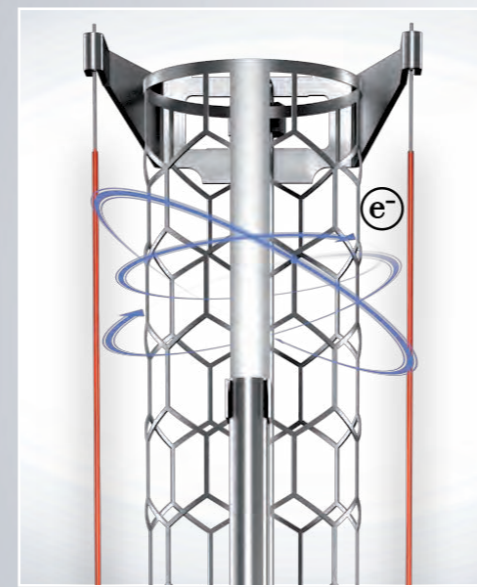
### Quick and easy with replacement sensor



### Differential pressure measurement

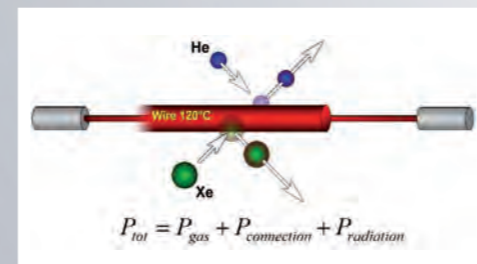


### Hot Ion principle



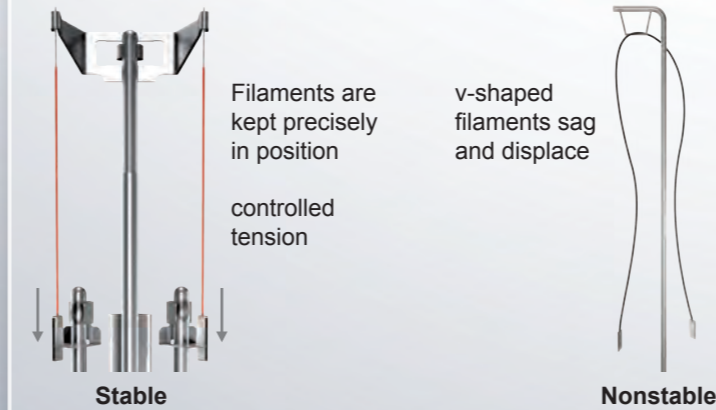
Long lifetime yttrium oxide coated iridium filaments

### Pirani principle

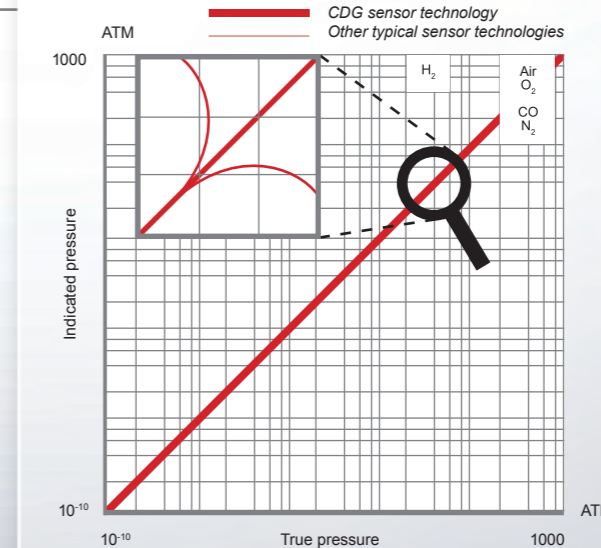


The temperature will be conducted through the gas molecules. The temperature loss of the hot filament is a function of the pressure.

### Stability and accuracy



### Gas type independence



### Interface I/O

- Classic analog signal
- Wide range power supply
- Setpoints
- Status LED
- RS-232
- Display
- ATM SWITCH function
- Fieldbus: EtherCAT®, Profibus®, DeviceNet®



### Enhanced lifetime through intelligent filament on/off control



Hot Ion    Pirani    CDG

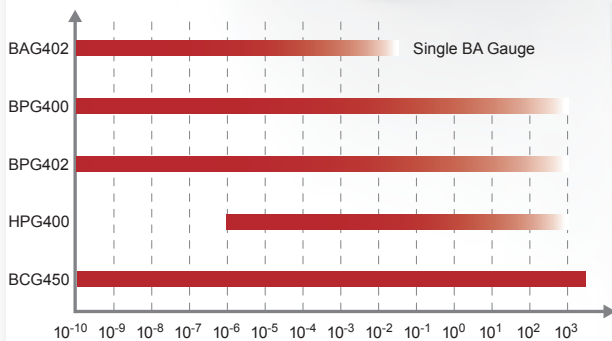
10E -10 mbar    5E -3 mbar    1500 mbar

## INFICON HOT ION FAMILY ADVANTAGES AT A GLANCE

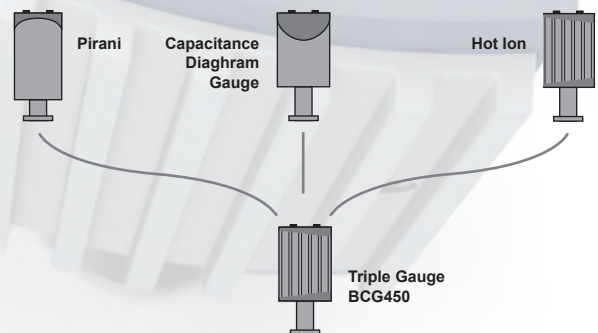
- Up to 13 decades in one gauge
- Save costs and tool space
- Install and forget
- Long lifetime



### Measurement ranges



### Combined technologies save costs and tool space



## EXCELLENT CUSTOMER SUPPORT IS A COMMITMENT

INFICON provides a global network of sales and service centers. These centers are staffed with local service and application experts who can assist you in choosing the best solution for your individual product application and provide fast support if service is needed.



### Americas

**INFICON Inc.**  
East Syracuse, NY  
Phone: +1.315.434.1100  
E-mail: [reach.us@inficon.com](mailto:reach.us@inficon.com)

### Europe, Middle East and Africa

**INFICON GmbH**  
Cologne  
Phone: +49.221.567.881.00  
E-mail: [reach.germany@inficon.com](mailto:reach.germany@inficon.com)

### Asia and Pacifica

**CHINA**  
**INFICON Ltd.**  
Beijing  
Phone: +86.10.6590.0164  
E-mail: [reach.china@inficon.com](mailto:reach.china@inficon.com)

**INDIA**  
**INFICON PVT. Ltd.**  
Pune  
Phone: +91.20.4120.4854  
E-mail: [reach.india@inficon.com](mailto:reach.india@inficon.com)

**JAPAN**  
**INFICON Co. Ltd.**  
Yokohama-shi, Kanagawa-ken  
Phone: +81.45.471.3328  
E-mail: [reach.japan@inficon.com](mailto:reach.japan@inficon.com)

**KOREA**  
**INFICON Ltd.**  
Kyunggi-do  
Phone: +82.31.783.2942  
E-mail: [reach.korea@inficon.com](mailto:reach.korea@inficon.com)

**SINGAPORE and AUSTRALIA**  
**INFICON PTE Ltd.**  
Singapore  
Phone: +65.6631.0300  
E-mail: [reach.singapore@inficon.com](mailto:reach.singapore@inficon.com)

**TAIWAN**  
**INFICON Co. Ltd.**  
Chupei City  
Phone: +886.3.552.5828  
E-mail: [reach.taiwan@inficon.com](mailto:reach.taiwan@inficon.com)



[inficon.com](http://inficon.com) [reachus@inficon.com](mailto:reachus@inficon.com) [twitter.com/inficon](https://twitter.com/inficon)

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