

Right Angle All Metal Bayard-Alpert Sensor

Performance & Reliability in a 304 Stainless Enclosure

Usable Range: 1×10^{-3} to 4×10^{-10} Torr or 2×10^{-11} Torr

Product Features

- Based upon proven ETI designs.
- Right angle design and entry grid minimizes deposition on the sensor assembly, extending filament life, while providing good conductance.
- Choice of single or dual bonded thoria filament versions.
- Bakable to 450 degrees C.
- Choice of degas methods (by model)
- Bail mechanism securely retains cable in place.



PRODUCT DESCRIPTION

This high performance BA sensor is housed in a right angle stainless steel body. Enclosing the sensor in a right angle body significantly reduces the amount of deposition that would otherwise coat the sensor assembly. Unlike glass body ion gauges, the wide throat of the 8140EA provides excellent conductance. The sensor can be mounted in any orientation.

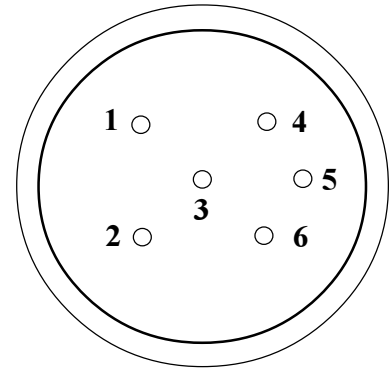
This high performance sensor is based upon the proven ETI 8130 and 8140 nude gauge designs. It is available in single or dual thoria bonded filament configurations. The filament in the single filament model is spring tensioned.

PRODUCT APPLICATIONS

- Physical Vapor Deposition
- Ion Implant
- MOCVD
- CRT Mfg.
- Optical & Functional Films
- High Energy Physics
- Lamp, Lighting & Laser Products Mfg.
- Mass Spectrometers
- Night Vision / Electro-Optical Detector Mfg.
- Plasma Enhanced Deposition

PRODUCT SPECIFICATIONS

- Operating Range:
1x10⁻³ to 4x10⁻¹⁰ Torr - single filament version
1x10⁻³ to 2x10⁻¹¹ Torr - dual filament version
- Wetted Materials: Type 304 Stainless Steel, tungsten, thoria, ceramic.
- Collector: 0.005" tungsten
- Grid:
Tungsten helix - single filament version
Ta and Pt/Mo squirrel cage - dual filament version
- Nitrogen Sensitivity:
10/Torr - single filament version
25/Torr - dual filament version
- X-ray limit:
4x10⁻¹⁰ Torr - single filament version
2x10⁻¹¹ Torr - dual filament version
- Electron bombardment degas:
70 watts - single filament version
40 watts - dual filament version
- Resistance heated degas: 6.3 - 7.5 volts @ 10 amps (single filament version only)
- Maximum Continuous Bake Temperature: +450 C
- Vacuum Interface: 2.75" CF Non-Rotatable Flange
- Collector Potential: 0 volts
- Shield Potential: n/a
- Grid Potential: 150 to 180 volts
- Filament Current: 4 to 6 amps
- Filament Voltage: 3 to 5 volts
- Filament Potential to Ground: 30 volts



Pinout Configuration

- 1: Grid
- 2: Grid
- 3: Collector
- 4: Filament #1
- 5: Filament Common
- 6: Filament #2*

* not used in single filament version

ORDERING INFORMATION

Single Filament Version	3303-8305-410
Dual Filament Version	3301-8305-110

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