

ETI® Glass Ionization Gauge

Type 4336 and 8135

The ETI® type 4336 hot ion gauge is a Bayard-Alpert type gauge available with either a burn-out resistant, single iridium-coated filament, or two tungsten filaments. ETI® was the first to incorporate a bi-filar grid design in its Bayard-Alpert gauges. Through this design, only half of the grid weight is suspended on each support, thereby making it more sag resistant during frequent outgassing conditions.

Physical Data

Tubulation Option 1	3/4", 1" Pyrex or Nonex Glass
Tubulation Option 2	3/4", 1" Kovar, flanges available on request
Envelope	Nonex 7720 Glass
Mounting Position	Vertical
Collector	0.005" Tungsten
Filament	Single Coated Iridium
High Stability Geometry	Available
Grid	Tungsten Helix Configuration

Operating Data

Sensitivity for N ₂	10/Torr
X-ray limit	2*10 ⁻¹⁰ Torr
Operating Pressure	2*10 ⁻¹⁰ Torr to 1*10 ⁻³ Torr
Electron Bombardment De-gas	70 W
Resistance Heated De-gas	6.3 to 7.5 V DC @ 10 A
Bakeout temperature	250°C

Recommended Electrical Operating Parameters

Collector Potential	0 V DC
Shield Potential	Connection to filament return
Grid Potential	150 to 180 V DC
Filament Current	4 to 6 A
Filament Voltage	3 to 5 V DC
Filament Potential to Ground	30 V DC

Pin Configurations

4336 Single Coated Iridium	
Pin #1	Grid
Pin #2	Filament
Pin #3	Filament
Pin #4	Grid

4336T Dual Tungsten	
Pin #1	Grid
Pin #2	Filament #1
Pin #3	Filament #1
Pin #4	Filament #2
Pin #5	Filament #2
Pin #6	Grid

8135 Dual Tungsten	
Pin #1	Filament #1
Pin #2	Grid
Pin #3	Filament Common
Pin #4	Grid
Pin #5	Filament #2

