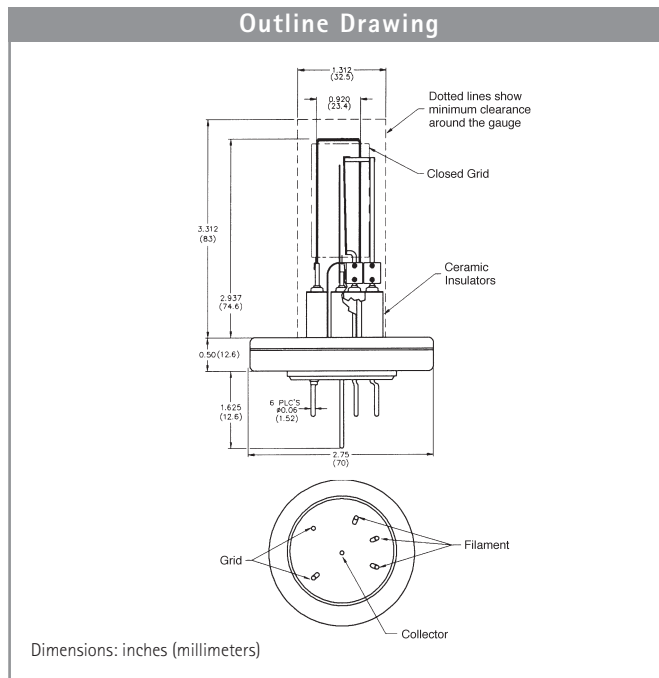


UHV-24 and UHV-24p Bayard-Alpert Ion Gauge



The UHV-24 is a Bayard-Alpert ion gauge using Varian's etched-grid structure to provide a broad operating pressure range with ionization effectiveness (sensitivity) at least 2 times that of other ionization gauges. The UHV-24 gauges excel in applications where superior measurement accuracy and repeatability of measurement are equally critical. The heated filament provides a constant source of electrons for ionization of gas molecules resulting in accurate and stable results. The precision collector limits X-ray current to a pressure equivalent of approximately 5×10^{-12} Torr (6.7×10^{-12} mbar).

The UHV-24P, an extended range version of the UHV-24, measures pressure from 5×10^{-12} Torr to 1×10^{-3} Torr



(6.7×10^{-12} mbar to 1×10^{-3} mbar). The UHV-24 and 24P feature a 2-3/4-inch ConFlat flange with long-life thoriated iridium or tungsten filaments that are easily replaceable in the field.

The UHV-24 and 24P are easily interfaced with Varian's XGS-600 gauge controller for integration into a variety of vacuum systems, or for use as a stand-alone pressure measurement tool.

Technical Specifications

| | UHV-24 | UHV-24p |
|-----------------------|--|--|
| Pressure range | 2×10^{-11} to 1×10^{-3} Torr 2×10^{-11} to 1×10^{-3} mbar | 5×10^{-12} to 1×10^{-3} Torr 6.7×10^{-12} to 1×10^{-3} mbar |
| Sensitivity | 25 Torr-1 | 20 Torr-1 |
| X-Ray Limit | 2×10^{-11} Torr | 5×10^{-12} Torr (6.7×10^{-12}) |
| Measurement precision | + 20% of full scale within a pressure decade | |
| Emission current | 4 milliamps default (10 ?A to 9.99 mA) | |
| Bake temperature | 450 °C with cable connected | |
| Temperature Limits | Operation 0 °C to 250 °C; Storage -15 to 80 °C | |
| Degas | Electron bombardment 400 volts @ 65 mA | |
| Materials | 304 ST, ceramic, Kovar, iridium or tungsten | |

Ordering Information

| Description | Part Number | Fitting | Shipping Weight lbs. (kg) |
|--|-------------|--------------|---------------------------|
| UHV-24, dual tungsten filaments | 9715008 | 2.75 in. CFF | 4.0 (2.0) |
| UHV-24, dual thoriated-iridium filaments | 9715007 | 2.75 in. CFF | 4.0 (2.0) |
| UHV-24P Extended Range, dual tungsten filaments | 9715014 | 2.75 in. CFF | 4.0 (2.0) |
| UHV-24P Extended Range, dual thoriated-iridium filaments | 9715015 | 2.75 in. CFF | 4.0 (2.0) |
| Filament replacement kit (thoriated-iridium) | 9710028 | | 1.0 (0.5) |
| Filament replacement kit (tungsten filament) | 9710018 | | 1.0 (0.5) |