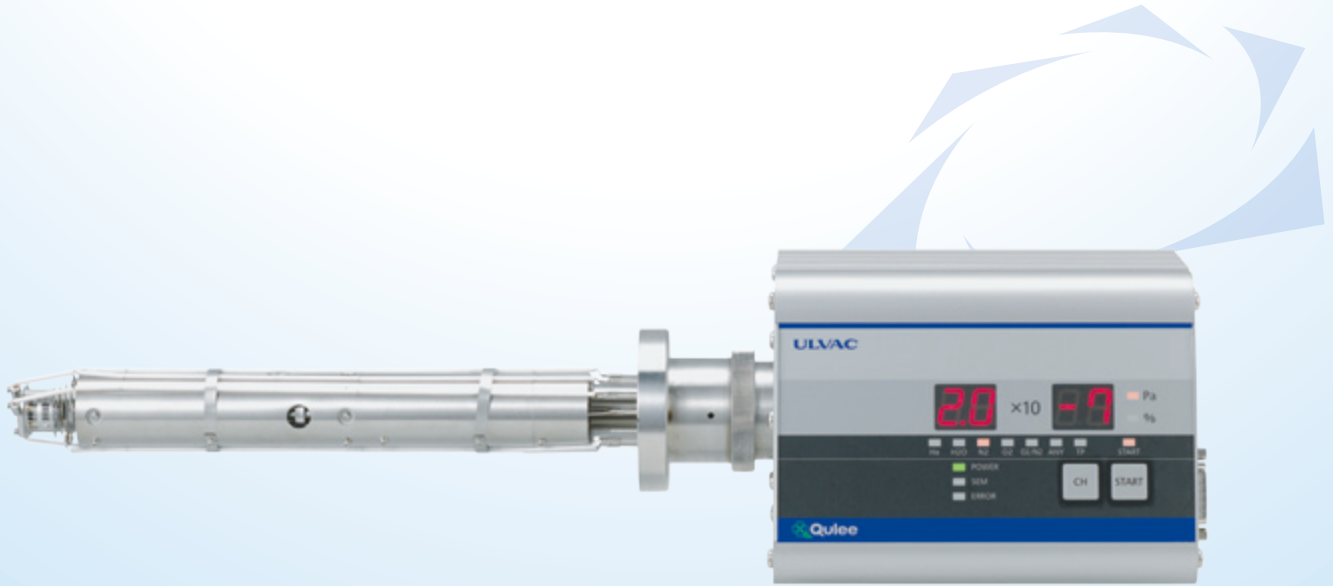


High Performance Process Gas Monitor [Qulee HGM Series]

ULVAC's new "Qulee HGM" residual gas analyzer series with revolutionary simplicity of use.

Offers highest sensitivity of all models at 2.5×10^{-6} A/Pa, Qulee HGM can meet the needs of various R&D and other vacuum system process monitoring.



Features

- ▶ **Most Appropriate for R&D Applications**
Offers highest sensitivity 2.5×10^{-6} A/Pa (3.3×10^{-4} A/Torr, 2.5×10^{-4} A/mbar)
- ▶ **Integrated Display**
No need for PC
- ▶ **Simple Operation**
"One Click" function
- ▶ **Bake Out**
Max 250°C (482°F) high temperature bake (300°C (572°F) when the sensors are removed)
- ▶ **Degas Function**
Electron bombard degas
- ▶ **Maintenance**
Filament, ion source, and secondary electron multiplier are easy to replace.
- ▶ **Protection and Maintenance Features**
Unit offers protection and maintenance of ion source and secondary electron multiplier

- ▶ **Traceability of analysis tube (patent pending)**
- ▶ **Various Leak Tests are Available**
Helium leak test, air leak test, leak up
- ▶ **Total Pressure Measurement**
Capable of total pressure measurement (ionization gauge)
- ▶ **Qulee QCS is Included**
This software is included and compatible with (Windows XP/7)
- ▶ **Applicable Standard**
Conforms with CE

Applications

- ▶ R&D such as thermal desorption gas analysis
- ▶ Residual gas analysis for ultra-high vacuum pumping equipment, etc
- ▶ Trace impurities in gas
- ▶ R&D for photovoltaic field
- ▶ Analysis of organic compound
- ▶ Environmental measurements

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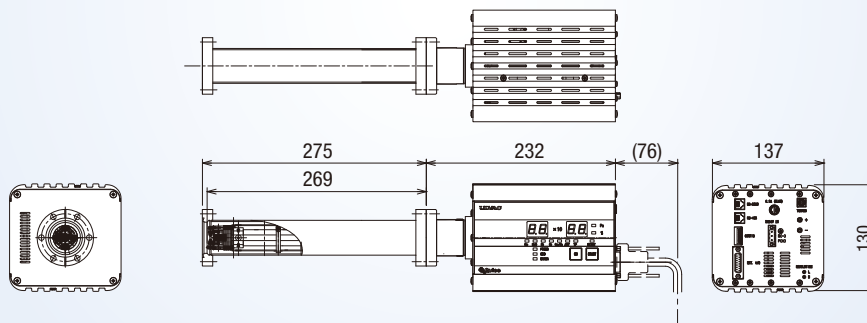
Specifications

| Model | HGM-202 | HGM-302 |
|---|--|--|
| Mass filter type | Quadrupole | |
| Mass range | 1 to 200 amu | 1 to 300 amu |
| Resolution | M/ Δ M=1M(10% P.H.) | |
| Detector type | Faraday cup | SEM |
| Sensitivity | 2.5 \times 10 ⁻⁶ A/Pa 3.3 \times 10 ⁻⁴ A/Torr 2.5 \times 10 ⁻⁴ A/mbar | 4A/Pa 533A/Torr 400A/mbar |
| Minimum detectable partial pressure | Approx. 10 ⁻⁹ Pa Approx. 7.5 \times 10 ⁻¹² Torr Approx. 1 \times 10 ⁻¹¹ mbar | Approx. 10 ⁻¹³ Pa Approx. 7.5 \times 10 ⁻¹⁶ Torr Approx. 1 \times 10 ⁻¹² mbar |
| Maximum operating pressure | 1 \times 10 ⁻² Pa 7.5 \times 10 ⁻³ Torr 1 \times 10 ⁻³ mbar | |
| Filament | Ir / Y ₂ O ₃ , 2 pcs | |
| Ionizing voltage | 25 to 70 eV (Default : 50eV) | |
| Emission current | 0.1mA/0.5mA/1.0mA (default:0.5mA) | |
| Degas | Electron bombard type 330V, 5mA | |
| Total pressure function | capable | |
| SEM voltage | -1.0 to -3.0kV (1V step) | |
| "One Click" function | Capable / H ₂ /H ₂ O/N ₂ /O ₂ /Any gas | |
| "One Click" leak test function | Capable | |
| Power input | DC24V \pm 10% 50W | |
| Weight (sensor unit/sensor) | 2.4kg/0.81kg | |
| Maximum sensor operating temperature | 250°C (482°F) | |
| Maximum bakeout temperature (electronics removed) | 300°C (572°F) | |
| Operating temperature range | 10 to 40°C (50 to 104°F) | |
| Operating humidity range | 15 to 80% (not condensing) | |
| IP rating | IP30 (Sensor unit) | |
| Power connector | MSTBV2.5/3-GF-5.08 | |
| Serial communication type | RS232C/RS485 (with option) | |
| External input / output connector | D-sub15-pin (M2.6 screw) (with option) | |
| Serial communication connector | 6 Pole 6 wire modular connector (RJ-11) | |
| External input / output signal | Analog input (0 to 10V) \times 2, External interlock input (pressure protection) \times 1, Error output \times 1 (FIL, SEM, RF fault), Partial pressure setpoint output \times 2 (fault, alarm), Total pressure setpoint output \times 1 | |
| Software | Qulee QCS Ver.3.0 later (WindowsXP/7) | |
| Standard accessories | Power connector, Communication cable (3m long), Software (install CD), Instruction manual (CD) | |
| Optional accessories (Cf. Qulee optional catalogue) | Communication cable (5m,10m,15m long), AC power adapter, RS232C/485 converter, RS485 branch connector and junction cable, Input / output connector, Instruction manual (clean paper), Jacket heater, Carry case | |
| Applicable standard | CE | |

Dimensions

HGM-202/302

Unit : mm



ULVAC, Inc. Components Division

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▶ This catalog is published in order to sell this product in overseas. Please see Japanese catalog when purchasing in Japan.