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Data Sheet
August 13, 2026

STANFORD RESEARCH SYSTEMS

Stanford Research RGA200

Stanford Research Systems RGA200 Residual Gas Analyzer The SRS RGA200 is the 200 amu residual gas analyzer for high-vacuum gas analysis. Each system includesaquadrupole probe (ionizer, mass filter, detector), electronics control unit, and Windows software. A Faraday cup covers about 1e-4 Torr to 5e-11 Torr partial pressure; an optional continuous-dynode electron multiplier extends the detection limit to 5e-14 Torr. The probe mounts on a 2.75 inch CF flange and needs about 2.0 inches of insertion clearance. Dual thoriated-iridium filaments are field-replaceable. The SRS RGA200 is the 200 amu residual gas analyzer for high-vacuum gas analysis. Each system includesaquadrupole probe (ionizer, mass filter, detector), electronics control unit, and Windows software. A Faraday cup covers about 1e-4 Torr to 5e-11 Torr partial pressure; an optional continuous-dynode electron multiplier extends the detection limit to 5e-14 Torr. The probe mounts on a 2.75 inch CF flange and needs about 2.0 inches of insertion clearance. Dual thoriated-iridium filaments are field-replaceable. UHV residual-gas analysis to 200 amu; leak detection; vacuum-process monitoring; chamber qualification; multi-head RGA installations; process gases with fragments above 100 amu.

MODEL **Stanford Research Systems RGA200**	CALIBRATION **Available on request**
CONDITION **Used**	STATUS **In stock**
RFQ / SKU **RGA200**	LISTING **https://aumictechlabs.com/products/rga200-2/**

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NAICS 423690 · 811210 · 541380

This unit

The Stanford Research Systems RGA200 is a residual gas analyzer for vacuum system diagnostics, measuring partial pressures across a 1–200 amu mass range. The instrument

combines a quadrupole probe, electronics control unit (ECU), and Windows-based software for real-time gas composition analysis and system monitoring.Technical Specifications Mass Range & Resolution 1 to 200 amu Better than 1 amu resolution at 10% peak height; adjustable to constant peak width across the mass range Dynamic Range & DetectionA single scan covers 6 orders of magnitude with a temperature-compensated logarithmic electrometer detecting ion currents from 10^{-7} to 10^{-15} amps at better than 2% precision. Detection limits depend on detector choice: Faraday Cup: 5×10^{-11} Torr Electron Multiplier: 5×10^{-14} Torr(Measured at 28 amu, 1 amu peak width, 10% height, 70 eV electron energy, 12 eV ion energy, 1 mA emission current) Sensitivity Faraday Cup: 2×10^{-4} A/Torr Electron Multiplier: <200 A/TorrUser-adjustable throughout the high voltage range. Operating Conditions Pressure: 10^{-9} Torr maximum; specifications support operation to 10^{-14} Torr Temperature: 70 °C maximumKey Features Ion Source & Filament Open cylindrical-symmetry ion source uses electron impact ionization with a dual thoriated-iridium (ThO_2/Ir) filament for extended service life. Built-in electron impact desorption enables ion source degassing to minimize background noise. Firmware-driven protection detects overpressure (675 Hz) and automatically shuts off the filament. Detector Options Standard Faraday cup detector measures partial pressures from 10^{-5} to 5×10^{-11} Torr. Optional continuous dynode electron multiplier (CDEM) extends sensitivity to 5×10^{-14} Torr with faster scan rates and improved stability; user-replaceable.Compatibility & Integration The probe mounts on a standard 2.75" Conflat flange and requires 2.5" clearance in the vacuum chamber. Rugged stainless steel construction with self-aligning components reduces outgassing. The ECU (9.1" × 4.1" × 3.1", 6 lbs) separates from the probe for independent high-temperature bake-outs. Field-replaceable filament cartridge and detector modules simplify maintenance.

Features & description

From manufacturer datasheet

Features

• 1 to 200 amu quadrupole (RGA100 is 100 amu; RGA300 is 300 amu) • 6 orders of magnitude dynamic range inasingle logarithmic electrometer scan (1e-7 to 1e-15 A, better than 2 percent precision) • Built-in degas (1 to 10 W ramp) and 675 Hz over-pressure filament protection • RS-232C 28800 baud; optional Ethernet adapter and PPM100 stand-alone monitor • ECU removes for 300 C bakeout • Optional O100HJRW heater jacket at 210 C +/-3 C

RGA200 Characteristics / Specifications

PARAMETER	VALUE
Model	RGA200
Manufacturer	Stanford Research Systems
Instrument Type	Residual Gas Analyzer
Series	RGA100/RGA200/RGA300
Alias	RGA200; SRS RGA200
Mass Range	1 to 200 amu
Mass Filter Type	quadrupole, cylindrical rods 0.25 in diameter, 4.5 in length
Detector Type	Faraday cup standard; electron multiplier optional
Resolution	better than 0.5 amu at 10 percent peak height (AVS 2.3); adjustable constant peak width
Faraday Sensitivity	2e-4 A/Torr (N2 at 28 amu, 1 amu peak width 10 percent height, 70 eV electrons, 12 eV ions, 1 mA emission)
Multiplier Sensitivity	less than 200 A/Torr, user adjustable with HV
Min Detectable Partial Pressure Faraday	5e-11 Torr (same N2 conditions)
Min Detectable Partial Pressure EM	5e-14 Torr
Operating Pressure Faraday	1e-4 Torr to UHV
Operating Pressure EM	1e-6 Torr to UHV
Maximum Operating Temperature	70 C
Bakeout Temperature	300 C without ECU
Recommended Bakeout Temperature	200 C (O100HJR heater jacket recommended)
Ionizer Design	open ion source, cylindrical symmetry, electron impact
Ionizer Material	SS304
Filament	dual thoriated-iridium with firmware protection; field replaceable
Electron Energy	25 to 105 V, programmable
Ion Energy	8 or 12 V, programmable
Focus Voltage	0 to 150 V, programmable

PARAMETER	VALUE
Electron Emission Current	0 to 3.5 mA, programmable
Degas Power	built-in 1 to 10 W ramp-up
Probe Length From Flange	8.75 in to top of ionizer
Probe Insertion	2.0 in
Probe Mounting Flange	2.75 inch CF
Minimum Tube ID	1.375 in
ECU Dimensions	9.1 in x 4.1 in x 3.1 in (WHL)
Warm Up Mass Stability	+/-0.1 amu after 30 minutes
Computer Interface	RS-232C, 28800 baud with high-level command set
Power Requirement	24 VDC at 2.5 A; optional built-in VAC adapter
Weight	6 lbs
Electrometer Range	1e-7 to 1e-15 A inasingle scan
Over Pressure Monitor Rate	675 Hz filament protection
Heater Jacket Setpoint	210 C +/-3 C (O100HJRW with Watlow EHG SL10)
Software Units	Torr, Bar, Pascal, and Amp
Operating temperature	70 C

General Specifications & Supplementary Characteristics

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Focus Voltage	0 to 150 V, programmable
Electron Emission Current	0 to 3.5 mA, programmable
Degas Power	built-in 1 to 10 W ramp-up
Probe Length From Flange	8.75 in to top of ionizer
Probe Insertion	2.0 in
Probe Mounting Flange	2.75 inch CF
Minimum Tube ID	1.375 in
ECU Dimensions	9.1 in x 4.1 in x 3.1 in (WHL)
Warm Up Mass Stability	+/-0.1 amu after 30 minutes
Computer Interface	RS-232C, 28800 baud with high-level command set
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Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

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Electron Energy	25 to 105 V, programmable
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Focus Voltage	0 to 150 V, programmable
Electron Emission Current	0 to 3.5 mA, programmable

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Probe Length From Flange	8.75 in to top of ionizer
Probe Insertion	2.0 in
Probe Mounting Flange	2.75 inch CF
Minimum Tube ID	1.375 in
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Software Units	Torr, Bar, Pascal, and Amp

Optional Accessories: Option 01 electron multiplier; Option 02 AC power module; Option 03 ion counting output; O100MAX 4.5 inch CF insertion nipple; O100REA Ethernet adapter; PPM100 stand-alone monitor

Notes
Specs from SRS RGA100 series product page, RGAc catalog, and RGA100/200/300 manual. RGA200 is the 200 amu UHV probe system, not the QMS200 atmospheric sampling cart. Confirm Faraday versus CDEM, AC adapter, and heater jacket.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: **sales@aumictech.com** · +1 (484) 841-9341

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