



R990

POWERFUL AND VERSATILE MICRO GAS CHROMATOGRAPH

The Ultimate Micro GC
for Energy Gases

Rapid and precise analysis
for natural gas, biomethane,
hydrogen, and odorants



VERSATILITY IN GAS CHROMATOGRAPHY

The R990 series leverages Agilent Technologies' chromatography miniaturization to deliver precise gas analysis in under 3 minutes. Designed for continuous process monitoring, it excels in laboratories, pilot plants, small reactors, and gas distribution networks.

At the heart of its analytical power lies a meticulously designed architecture of up to 4 interchangeable modules (injectors, columns, and detectors). Each module is tailored to specific separation requirements, allowing quick on-site replacement to minimize downtime.

Flexible Configurations & Operation

- **Hardware Setups:** Available in desktop, 19" rack, and wall-mounted configurations.
- **User Interface:** Features an on-board Windows 10 computer with dedicated process software.
- **Metrological Precision:** The dedicated R990M variant is certified according to **OIML R-140** standards for high-accuracy applications.

Core Benefits

- **Modular:** Up to 4 interchangeable analysis channels.
- **Fast:** Analysis completed in under 3 minutes.
- **Integration:** Fits desktop, 19" rack, or cabinets.
- **Open & Safe:** Flexible communication via standard Modbus.
- **Automation:** Continuous process monitoring and stream control.
- **Robust & Stable:** Built for demanding production environments.

Regulatory Compliance

- **UNI ISO 11885:2022:** Gas chromatographs with TCD on distribution.
- **UNI/TS 11537:2024:** Biomethane injection into transport networks.
- **UNI 7133-2:2023:** Gas odorization for domestic use.
- **UNI EN ISO 2614:2023:** Terpene content in biomethane via μ GC.

Application Fields

- Natural and refinery gas
- Biomethane injection plants
- Hydrogen, odorants, and VOCs
- Syngas and hydrocarbons
- Petrochemical and oil & gas prospecting.



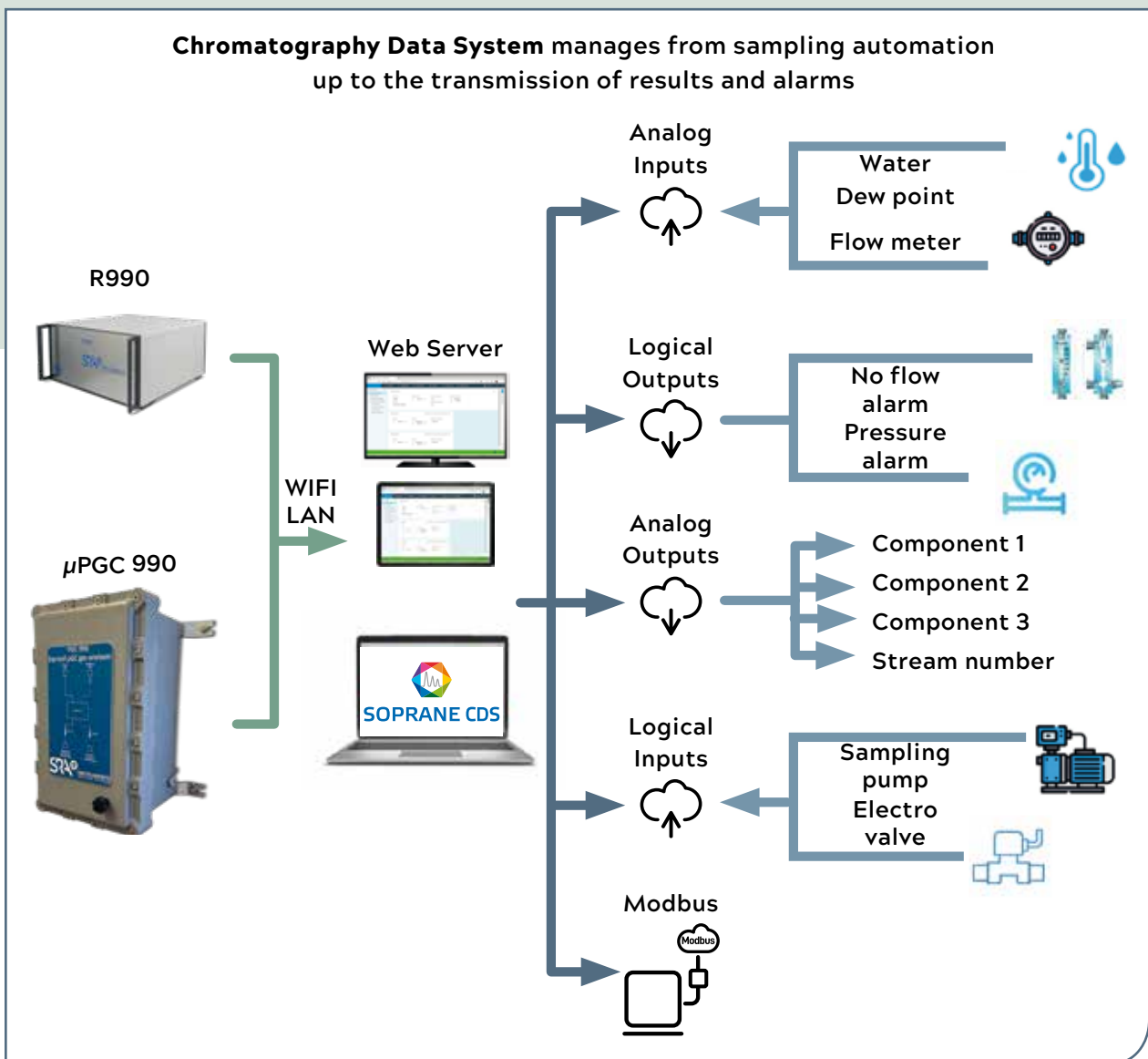
SOFTWARE, COMMUNICATION & TECHNICAL SPECIFICATIONS

Communication & Automation Capabilities

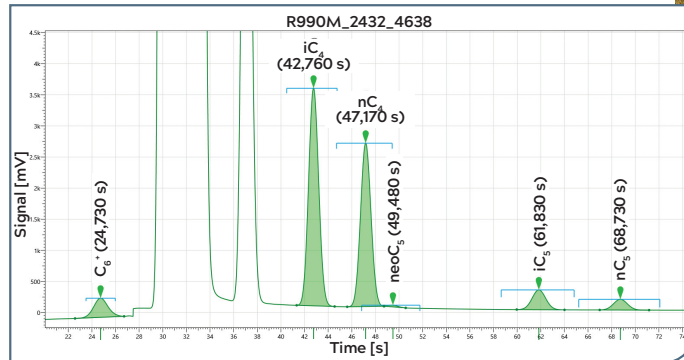
Standard communication includes Modbus outputs, relays, and analog I/O, ensuring seamless integration of the R990 series within diverse industrial automation networks and operational frameworks.

Chromatography Data System

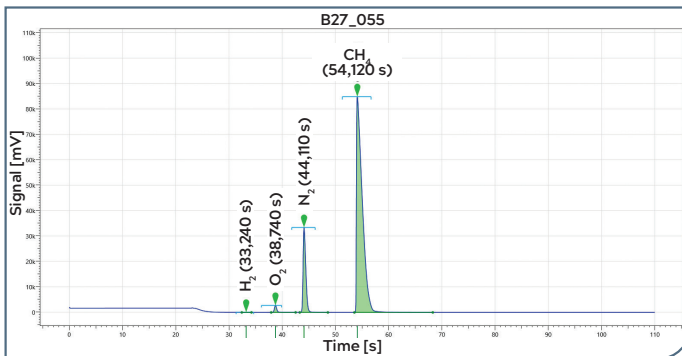
- **SRA Soprane CDS:** Intuitive graphical environment to define analytical methods, control valves, and manage multiple sample streams.
- **Agilent PRO Station (Web Server):** Dedicated software license installed directly on the mainboard, accessible via IP address without requiring an internal computer.



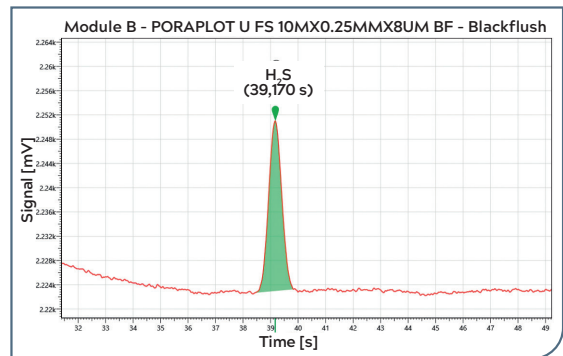
ANALYTICAL EXAMPLES



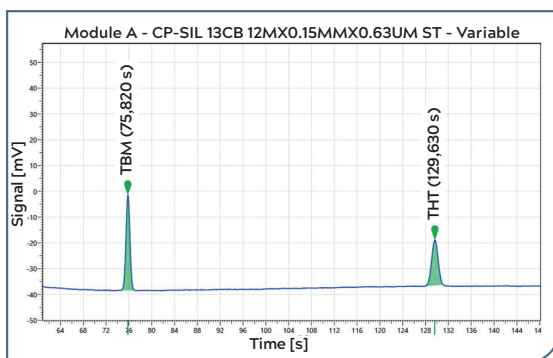
$C_2 - C_6^+$



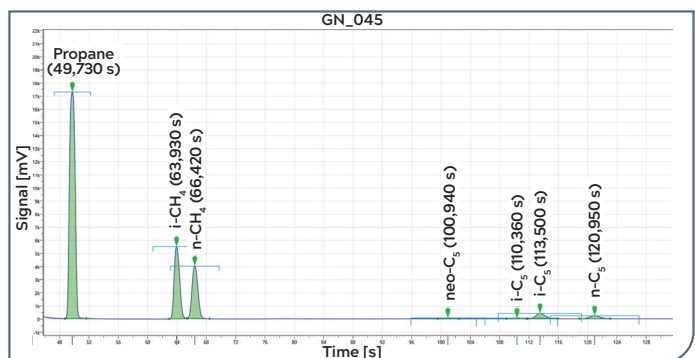
Permanent Gases



H_2S



Odorants THT, TBM



$C_3 - C_6$ saturated, unsaturated and isomers



TECHNICAL SPECIFICATIONS

R990 Main Chassis	Value / Description
Analysis Channels	1 to 4 independent channels
Internal Pumps	0 to 2
Sample Inlets	1 (2 in option) 1/8" Stainless steel (Swagelok type) Max 1 bar relative
Carrier Gas Inlets	1 or 2 1/8" stainless steel (Swagelok type) 5.5 bar ± 0.2 bar
Vents	1/8" brass outlets (Swagelok type)
Pressure Sensor	Range -1 to 1.5 bar
Power Supply	200W max / 100V-240V / 50-60Hz

Digital Input / Output & Ports	
Digital I/O	2x Digital Input 2x Digital Output 2x Output relays (24V, 1A max)
With On-Board Computer	Windows 10, Soprane CDS
Without On-Board Computer	PRO license, 1x Ethernet, 3x USB (Wi-Fi ready), and 2x SUB D-9 Male (COM2/COM3 RS232/RS422/RS485 Modbus)

DIMENSIONS & MECHANICAL LAYOUT

- **Overall Size:** 448.9 x 221.45 x 495.5 mm
- **System Weight:** From 18 to 24 Kg (depending on the internal channel configuration)
- **Installation Versatility:** Technical footprints optimized for standard 19" rack cabinets, industrial wall mounts, or laboratory desktops.



CONCLUSIONS

The Ultimate Solution for Gas Analysis

The SRA Instruments R990 system bridges the gap between modular gas chromatography and industrial automation. It delivers unmatched performance and flexibility to meet today's demanding energy transition challenges.

- **Maximum modularity:** up to 4 interchangeable analysis channels.
- **Exceptional speed:** complete analysis in under 3 minutes.
- **Energy transition ready:** perfect for biomethane, hydrogen, and odorants.
- **Industrial integration:** standard Modbus communication and continuous process control.
- **Guaranteed compliance:** certified according to OIML and ISO standards.

Contact us for a demonstration or a personalized quote!



*This information is subject to change without notice.

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