



**INSTRUMENTS**  
ANALYTICAL SOLUTIONS

## SRA R990 POWERFUL AND VERSATILE MICRO GAS CHROMATOGRAPH

An attractive design and a wide potential of use are the main features of the new **R990** designed by SRA Instruments. This powerful gas analyzer uses the latest gas chromatography miniaturization technologies, developed by Agilent, to perform gas mixture analyses in a few seconds. This  $\mu$ GC is perfect to be used in the laboratories, in research or production departments with a particular aptitude to continuous analysis of process gases in gas distribution, pilot plants or synthesis reactors.

The system, available in desktop or rack cabinet version, is compact in its hardware organization but modular in the choice of the analytical configuration. **R990** incorporates an on-board computer with Windows 10 operating system and chromatographic and process software. The large, bright, touchscreen LCD display, offers an easy-to-use feature necessary for those who have to manage the start of analysis, instrumental diagnostics and measurement results.


The micro gas chromatograph can be easily integrated thanks to the various communication and automation



possibilities available in the basic version, such as Modbus outputs, relays and analog inputs / outputs. The analytical architecture consists of modules containing injector, column and microTCD detector, installed in parallel and suitably chosen in number (up to 4) and in the type of column to solve the separation of the compounds.

The new Agilent architecture allows the replacement of the individual components (injector, column and detector) of the chromatograph directly on-site.

### Applications



**Application fields:**

- > natural gas
- > hydrogen
- > biogas and biomethane

**R990** is perfect for the analysis of fuel mixtures, such as natural gas, hydrogen, biogas and biomethane, where it is used for the measurement of the composition, calorific value and impurities present in gases.

# R990

## Specifications

### R990 Main Chassis

Number of analysis channels: 1 to 4

Number of internal pumps: 0 to 2

#### Sample inlet

- 1 or 2
- 1/16" stainless steel inlets
- 1 bar relative maximum

#### Carrier gas

- 1 or 2
- 1/8" stainless steel inlets
- 5.5 bar relative maximum

#### Vents

- 6 maximum
- 1/8" brass outlets maximum

#### Panels

- 1 front panel LED: status of the R990 (ready, in analysis, in alarm)
- 1 front panel standby switch
- 1 back panel MAIN switch

#### Digital input/output

- SUB-D25 female connector
- 2 x digital inputs
- 2 x digital outputs
- 2 x output relays (24 V - 1 A maximum)
- Voltages available: 1 x 5 V - 1 x 12 V (500 mA max)
- Control signals: 1 x start in - 1 ready in - 1 ready out - 1 start out

#### Weight

- 1 analytical module + OBC: 18 kg
- 2 analytical modules + OBC: 20 kg
- 3 analytical modules + OBC: 22 kg
- 4 analytical modules + OBC: 24 kg

#### Dimensions:

**Desktop case:** 448.9 (W) x 236.7 (H) x 495.5 (D) mm

**19"Rack:** 482 (W) x 221.5 (H) x 495.5 (D) mm

**Power supply:** 300 W max / 100 V-240 V / 50-60 Hz

### Without On-Board Computer

1 x Ethernet

3 x USB (1 on front panel and 2 on back panel):

- Wifi
- Agilent license (standard, mobile or pro)
- Storage (Mobile or Pro License only)

1 x SUB-D9 Male: for Vici Valve - RS232 COM1

If Pro licence: 2 x SUB-D9 Male COM 2 and COM 3 RS232/  
RS422/RS485 Modbus

### With On-Board Computer

Intel core i3 Processor

SSD 256 GB

RAM 8 GB

Windows 10 and SRA Soprane CDS Software

Ports (Connected to the on-board computer)

- 1 x Ethernet
- 1 x USB 3.2 on front panel
- 2 x USB 2.0 on back panel
- 2 SUB-D9 male RS232 - RS422 - RS485 (VICI valve or Modbus via Soprane CDS)
- 1 SUB-D9 male RS232 (VICI valve or Modbus via Soprane CDS)
- 1 VGA

## Options

### Analog input

- Screw connectors with 4 analog inputs 0-10 V or 0-20 mA (individually configurable)

### Genie filter membrane

(with or without sulfinert coating)

- Genie 170
- Type 6 Membrane – 54°C maximum
- Inlet – outlet: 1/16" (Vici type)

### Front panel touchscreen (OBC mandatory)

- Touchscreen 7" TFT – 24 bit – 1024 x 600 pixels
- Display results
- Start analysis

### Pressure sensor

- Sample inlet pressure measurement
- Range: - 1 to 1.5 bar
- Accuracy:  $\pm 60$  mbar

### Sample selection valve

- 3 ways valve
- Multi position valve

### Digital or analog input/output

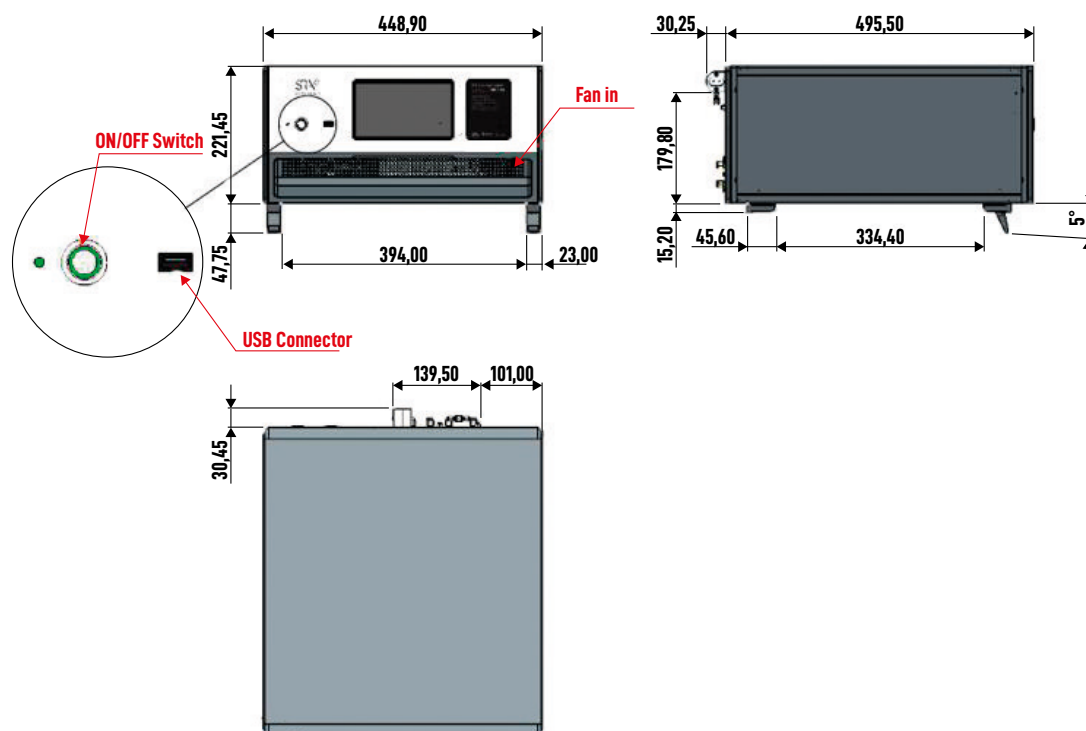
(choose between the following possibilities)

- 4 x 4-20 mA outputs
- 4 x relay outputs (5 A – 250 V)
- Customized configuration on demand



# R990

## Interface plan



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