



**INSTRUMENTS**  
ANALYTICAL SOLUTIONS

# MYVAP AUTOMATIC VAPORIZER FOR LPG ANALYSIS

## Unsurpassed performance for GC LPG analysis

Gas Chromatography is commonly used to determine the composition of LPG after vaporization of the sample.

This vaporization phase is often a source of errors and bias. Most of the methods are offline and operator-dependent, resulting in problems of reproducibility and repeatability of analyses.

SRA Instruments has developed MyVAP, a vaporizer and sampler, both independent and automatic, which extracts LPG through a heated stainless steel chamber controlled by electronic pressure and temperature sensors in accordance with the UOP 539 method.

As described in the method, the cylinder has an open/closed valve which allows the LPG to be sprayed in a very reproducible manner, independently of the operator.

The system's performance is based on very precise control of pressure and temperature during the sample vaporization



MyVAP with LPG sample cylinder

phase. The spray cycle is easily programmable via the MyVAP web interface. It also includes purging the GC sampling system and valve to reduce sample-to-sample memory effects.

Before injection, the gas is sampled at the set pressure and GC analysis is automatically initiated by an external start.







All operations are fully automated and controlled by the integrated web interface. MyVAP is made from high quality materials and components using safety fittings and a safety valve that ensures safe operation.



Main page of Web interface

## Embedded software

The embedded software, developed by SRA Instruments, extends the capabilities of MyVAP, including security, remote management and GC launch characteristics. Free software, it allows you to start and program your vaporizer with a simple web browser.

<p>Application fields:</p>  <p>Detailed composition of hydrocarbons in LPG Analysis of non-condensable in LPG</p>	<p>Vaporization cycle fully automated</p> 	<p>Unsurpassed reproducibility &amp; repeatability</p> 	<p>Automatic launch of GC sequences</p> 	<p>Ethernet communication</p> 	<p>GC multi-brand compatibility</p> 
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# MyVAP

## Technical specifications

### General specifications

Dimensions (mm):	H 450; D 430; W 300
Weight:	15 Kg
Chassis:	Aluminium/Steel/Stainless Steel
Sample path material:	Stainless steel

### Conditions of use

Temperature:	0°C to 40°C
Relative Humidity:	5 to 95% no condensation
Altitude:	up to 2000 m max
Use:	indoor

### Power

Power Supply:	230 VDC, 50Hz
Power consumption:	6 A max

### Sample

Nature:	Liquefied Petroleum Gas, C <sub>3</sub> and C <sub>4</sub> mixtures
Pressure:	50 bar max.
Safety:	expansion chamber volume = 1 Liter Overpressure prevented by CE type relief valve 30PSI

### Connection

Inlet:	swagelok fast connector 1/8"
Outlet to GC:	1/16" diam. ext., 0.98mm diam. int.
Vent:	1/4" Swagelok

### Chromatographic specifications

Repeatability:	< 0.5 % RSD on C <sub>3</sub> and C <sub>4</sub>
GC configuration:	heated gas sampling valve installed on the GC
Compatibility:	compatible with any GC type equipped with Gas Sampling Valve

### Communication

Ethernet:	fixed IP or DHCP (IP 10.1.1.113 by default)
Operating system:	any OS with web browser
Supported web-browser:	Internet Explorer revision 10 or higher Chrome revision 28 or higher
Data System:	SRA embedded web software. no installation required

### I/O (Remote)

Contacts:	GC External device not ready/start/GC ready Input
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### Miscellaneous

Valves:	4 electro-valves
Internal vacuum pump:	before vaporization, to clean the cylinder assembly
Vaporization temperature:	from 50°C to 200°C
Pressure sensor range:	0 to 5 bar
Mode of operation:	automatic via software, programmable sequence
Optional transfer line:	heated transfer line to GC. L= 1.5m/150°C
Optional coating:	inerting for the analysis of H <sub>2</sub> S, sulphurous or sensitive compounds.

### Applications

Analysis of composition of liquefied petroleum gases LPG

### The SRA MyVAP is composed of

- Sample inlet with valve to fast loop (liquid vent)
  - Heated main vaporization chamber
  - Needle valve for optimum vaporization time control
  - Electronic pressure sensor 0-5 bar
  - Heated tank for vaporized gas (1L)
  - Vacuum pump
  - Relief valve to protect overpressure in the vaporization chamber
- Isolation electrovalves for automatic operation  
Self-monitoring system, error reporting at startup for a easy maintenance

