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 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.

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.

MyVAP

Quality assurance of your LPG analyses

Application:
- Detailed composition of hydrocarbons in LPG
- Analysis of non-condensable in LPG

Unsurpassed reproducibility & repeatability

Vaporization cycle fully automated

Automatic launch of GC sequences

Ethernet communication

GC multi-brand compatibility
### 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 à 40°C
- **Relative Humidity:** 5 à 95% no condensation
- **Altitude:** jusqu'à 2000m max.
- **Use:** indoor

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

**Sample:**
- **Nature:** Liquefied Petroleum Gas, C3 and C4 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 C3 and C4
- **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

**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 H2S, sulphurous or sensitive compounds

**Applications:**
- Analysis of composition of liquefied petroleum gases LPG

The SRA MyVAP is composed of:
- A sample inlet with valve to fast loop (liquid vent)
- A heated main vaporization chamber
- A needle valve for optimum vaporization time control
- An electronic pressure sensor 0-5 bar
- A heated tank for vaporized gas (1L)
- A vacuum pump
- A relief valve to protect overpressure in the vaporization chamber
- Isolation electrovalves for each system part for automatic operation
- System self-monitoring at startup and error reporting for easy maintenance.

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