



**INSTRUMENTS**  
ANALYTICAL SOLUTIONS



**Agilent**

Premier  
Solutions Partner



# **BIOGAS, BIOMETHANE and NATURAL GAS ANALYZER**

**GAS CHROMATOGRAPHY** experts  
at the service of renewable sources

# Our Analyzers everywhere you need



## ■ On-line Biomethane Micro-GC Rack Analyzer Metrological Certification LNE-35372

A powerful gas-chromatographic solution for biomethane analysis:

- Compositional ( $N_2$ ,  $O_2$ ,  $H_2$ ,  $CO$ ,  $CO_2$ ,  $CH_4$ ,  $C_2H_6$ ,  $C_3H_8$ )
- Measurement of Calorific Values
- Odorants (THT, TBM)
- Impurities ( $H_2S$ ,  $COS$ , Terpenes, Ketones)
- Complies with OIML R140:2007
- One year instrument response stability

## ■ On-line Micro-GC Rack Analyzer

Composition of Biogas, Biomethane and Natural Gas

- $H_2$ ,  $O_2$ ,  $N_2$ ,  $CO$ ,  $CO_2$ ,  $H_2S$ ,  $COS$ , C1 up to C10
- Measurement of CV, Wobbe, Density
- Monitoring of odorants
- Automatic stream selection
- Flexible in configuration for a cost effective solution
- Smart remote access to results



## ■ Micro-PGC Gas Analyzer ATEX Micro-gas chromatograph

Certified Ex II 2 G-Ex db IIC T5 Gb  
(LCIE 17 ATEX 3064 X)

- Hi-speed chromatography
- The modular design simplifies maintenance and reduces downtime
- Analysis of hydrocarbons, permanent gases and sulfur species
- Physical property calculations ISO 6976:2016
- Flexible configurations for Biogas, Biomethane, Natural Gas,  $H_2$ NG, LPG analysis



## SOPRANE II

## ■ SMART remote management of analyzers and results



SRA Instruments uses the proprietary Soprane platform to control the Micro-Gas chromatographs in a simple, powerful and modern software architecture

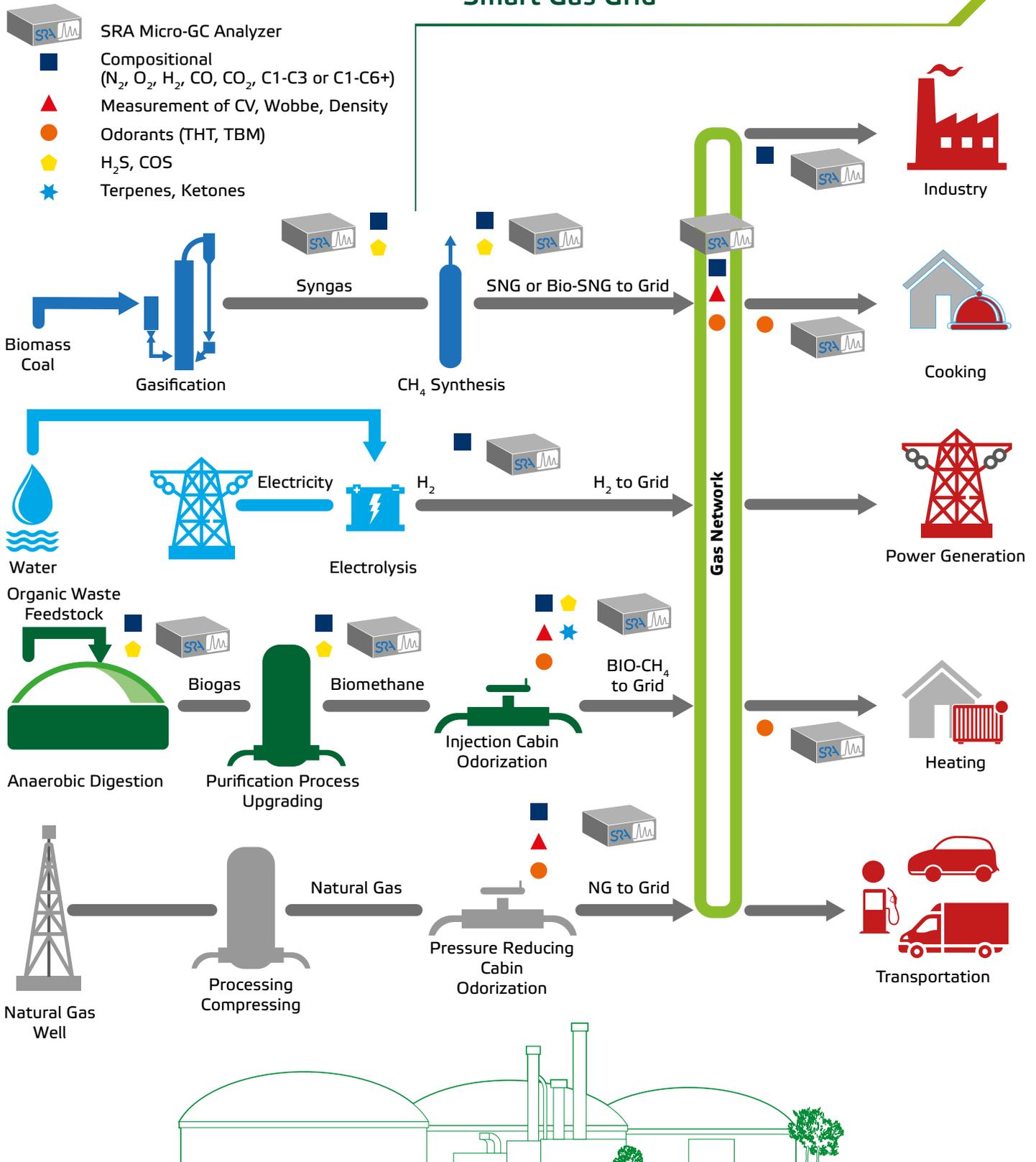
- Essential and Micro-GC dedicated chromatographic software
- Remote Micro-GC diagnostic and connection
- Combine results from external analyzers in a single platform
- SMART access to results on WEB page
- Sampling: automatic selection of sampling line and calibration
- Automation: Schedule a sequence, calibration and bakeout
- Data transfer: Modbus, External I/O, LabVIEW, LIMS ...
- Specific calculation: Natural gas, LPG, combustion, USP pharmacopeia...

# A Partnership of Excellence

From gas production to process treatment and upgrading to distribution, **SRA Instruments** is your Partner to study, configure and supply an analytical **Micro-GC** equipment for your best efficiency and safety

## Flexibility is our strength

Where our Gas Analyzers are used in the Smart Gas Grid



# Specifications

	Rack model 5U:	ExProof model
<b>Dimensions mm (H x D x W)</b>	H: 225 x D: 464 x L: 482	H: 500 (1060 with bracket) x D: 262 x L: 465
<b>Weight</b>	10 Kg	45 Kg (80 Kg with bracket)
<b>Carrier Gas</b>	He, H <sub>2</sub> , N <sub>2</sub> or Ar, 550 ± 10 KPa (80 ± 1.5 psi) input. Purity 99.9995% minimum. Up to two different types of carrier gas can be used in one instrument Inlet connetions 1/8" OD stainless steel compression fitting (Swagelock) Typical carrier gas consumption 8 ml/min	
<b>Environmental conditions</b>	Temperature: 0 °C to 50 °C	
<b>Power requirements</b>	Main power 220-240 VAC, 50-60 Hz Power consumption 10 A max, 130 W max	
<b>Classification and certifications</b>	To be installed in safe area Metrology certification LNE - 35372 for Biomethane energy determination	Conforms to ATEX Directive 2014/34/UE and EMC norms EN 61000 and EN 61326-1 Area Classification Ex II 2 G - Ex db IIC T5 Gb
<b>Sampling</b>	Only gas or vapour samples Pressure: from atm to 14.5 psi max (1 bar rel) Sampling pump: up to 2 independent sampling pump. Depending on application Stream selector (optional): by electrovalves or VICI Valco valve Auxiliary sampling pump (optional)	
<b>Chromatographic specifications</b>	Injector type: micro-machined injector without moving parts Variable volume heated injector Injection volume: 1 to 10 µL, software selectable Column: capillary fused silica column from 150 µm to 320 µm Column temperature: isothermal operation, ambient +15 °C to 180 °C Detector: micro-machined thermal conductivity detector (µTCD) Linear dinamic range 10 <sup>6</sup> for most of compounds Repeatability <0.5 % RSD for propane at 1 mol % level for WCOT column Detection limit: 0.5 ppm for WCOT column, 2 ppm for PLOT columns	
<b>Communication</b>	Ethernet with internal embedded computer Transmission data with Modbus (RS485 and TCP/IP) fully configurable Analog 4-20 mA output and signal input from external analyzer	
<b>Driving software</b>	Acquisition and processing software: SRA Soprane, french, english. Operating system: Windows 10 Pro Specific calculations: NGA ISO 6976:2016, LPG ISO 8973/7941/6578, combustion gas, customized	
<b>Applications</b>	Fixed gases (He, H <sub>2</sub> , O <sub>2</sub> , N <sub>2</sub> ), CO, CO <sub>2</sub> , hydrocarbons C1-C10, H <sub>2</sub> S, COS, mercapthanes, BTX, etc. Application fields: Natural Gas, Biogas, Biomethane, Refining Gas, Fuel Cells, Catalysis, Process gas, etc	



[srainstruments.com](http://srainstruments.com)

**SRA**  
INSTRUMENTS  
ANALYTICAL SOLUTIONS

**SRA INSTRUMENTS SAS**  
210 rue des Sources | 69280 Marcy l'Etoile | France  
Tel. +33 (0)4 78 44 29 47 | Fax +33 (0)4 78 44 29 62  
info@sra-instruments.com

**SRA INSTRUMENTS SpA**  
Via alla Castellana, 3 | 20063 Cernusco S/N (MI) | Italy  
Tel. +39 02 9214 3258 | Fax +39 02 9247 0901  
info@srainstruments.com

 **Agilent** Premier Solutions Partner

