

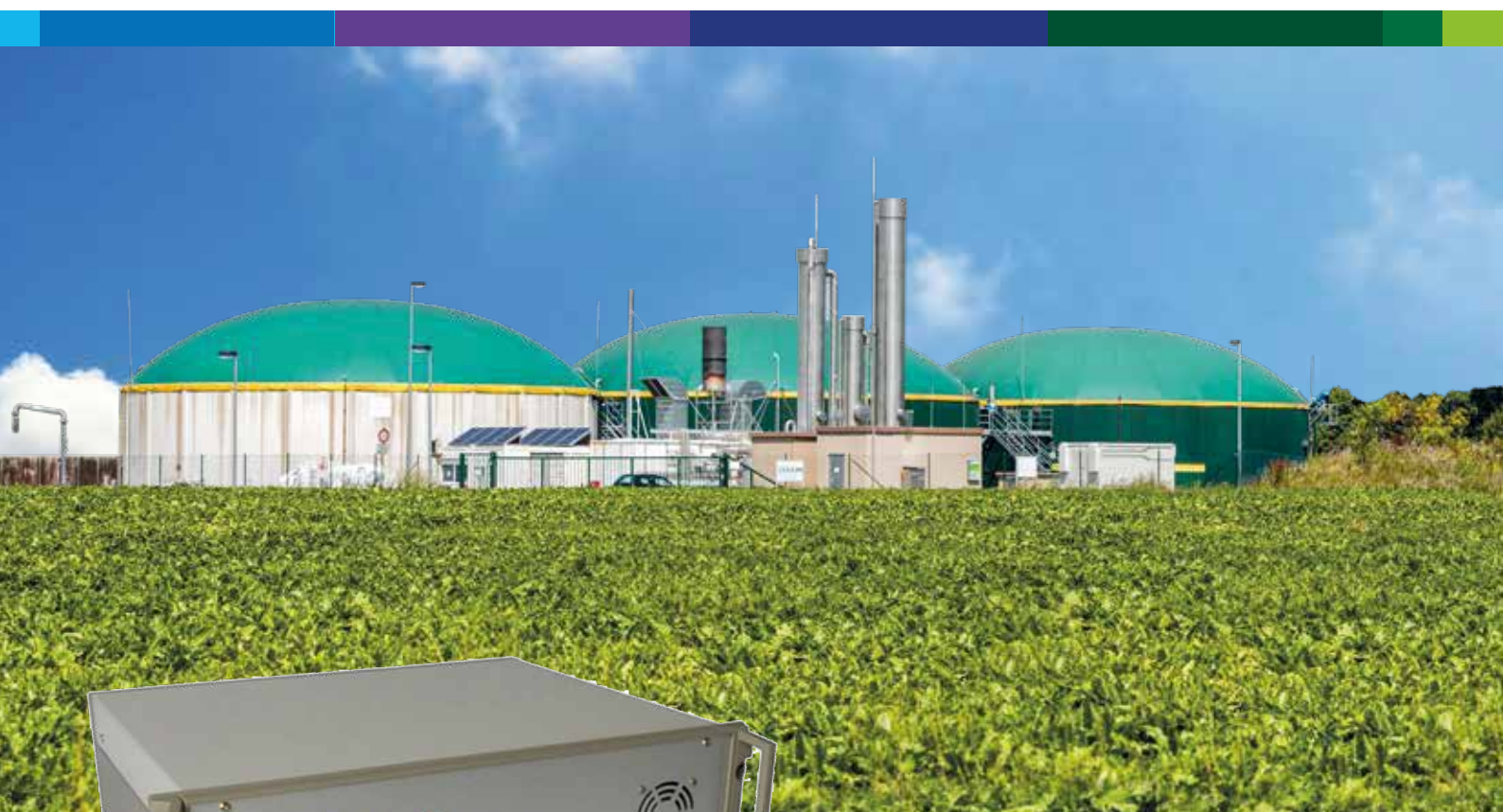


INSTRUMENTS
ANALYTICAL SOLUTIONS



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

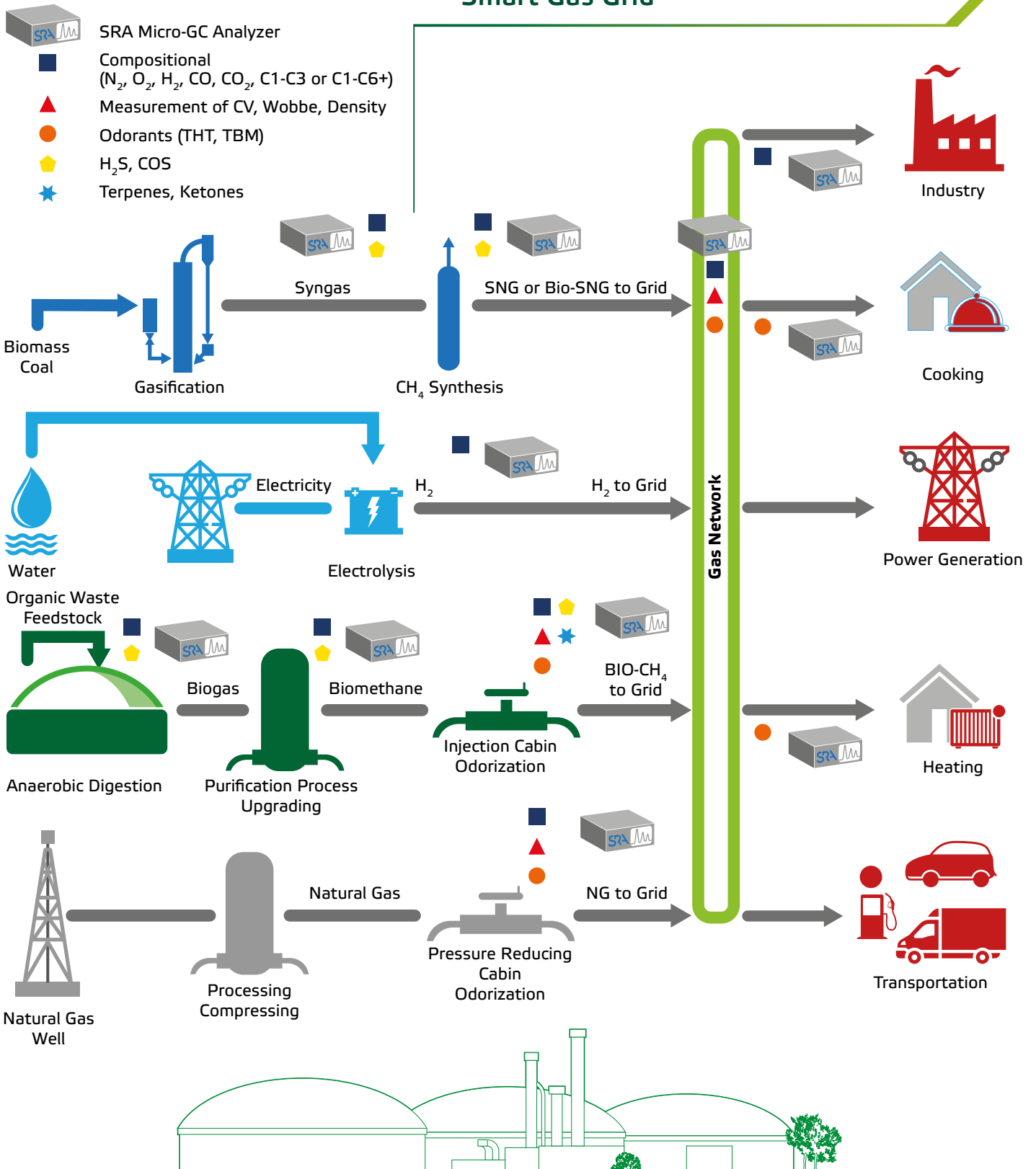
- Essential and Micro-GC dedicated chromatographic software
- Remote Micro-GC diagnostic and connection
- Combine results from external analyzers in a single platform
- SMART access to results on WEB page
- Sampling: automatic selection of sampling line and calibration
- Automation: Schedule a sequence, 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
Dimensions mm (H x D x W)	225 x 464 x 482	500 (1060 with bracket) x 262 x 465
Weight	10 Kg	45 Kg (80 Kg with bracket)
Carrier Gas	He, H ₂ , N ₂ 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 connections 1/8" OD stainless steel compression fitting (Swagelock) Typical carrier gas consumption 8 ml/min	
Environmental conditions	Temperature: 0 °C to 50 °C	
Power requirements	Main power 220-240 VAC, 50-60 Hz Power consumption 10 A max, 130 W max	
Classification and certifications	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
Sampling	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)	
Chromatographic specifications	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 dynamic range 10 ⁶ 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	
Communication	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	
Driving software	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	
Applications	Fixed gases (He, H ₂ , O ₂ , N ₂), CO, CO ₂ , hydrocarbons C1-C10, H ₂ S, COS, mercapthanes, BTX, etc. Application fields: Natural Gas, Biogas, Biomethane, Refining Gas, Fuel Cells, Catalysis, Process gas, etc	



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