INSTRUMENTS
ANALYTICAL SOLUTIONS

PGC 490 PROCESS MICROGC

Industrial analyzer for process applications

II 2 G - Ex db IIC T5 Gb

The process chromatograph PGC 490, ATEX explosion proof analyzer, uses the most advanced technologies to carry out on-line analysis of gaseous effluents and vapours in most industrial environments: Refining, Petrochemicals, Nuclear power plants, Natural gas, etc...

It can also be used as a regulation sensor. Its modular design allows it to handle different applications and integrate them into all control systems.

Field analyzer, its robust and compact construction adapts to the installation in the industrial field: outdoor, in hazardous areas (external explosion proof cover).

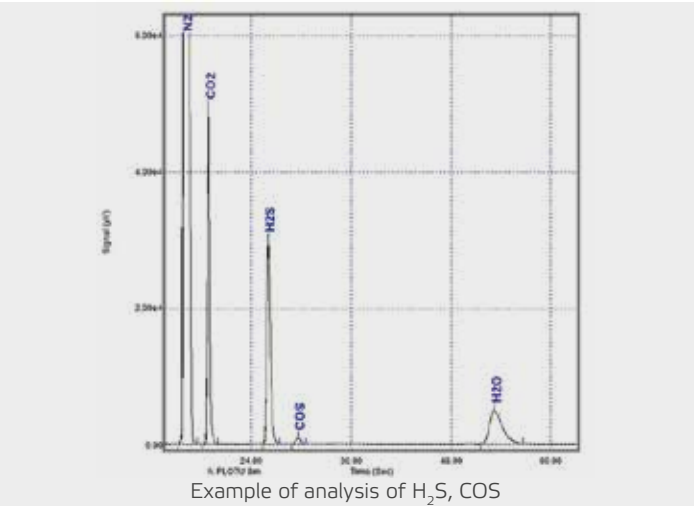
ATEX MicroGC SRA Instruments

Soprane II software

Suitable for MicroGC process applications, Soprane II, developed by SRA Instruments, has a powerful, efficient and easy-to-use graphical environment. Soprane II allows you to define analysis methods and sequences, control valves, manage several streams.

Most communication possibilities are supported, such as Modbus, Profibus, analog transmission, alarms...

Main page of Soprane II software



Example of analysis of H_2S, COS

Low ownership costs

The modular construction makes it possible to achieve optimum design for each application and thus minimise the costs of study and installation.

Low maintenance and low gas consumption save the user money compared to a conventional solution.

Plug and Play technology reduces downtime to a minimum as analytical parts are changed on site directly by the user.

Application fields:			
Natural and refinery gas Syngas Biomethane injection plant Petrochemical environment Hydrocarbons Oil & gas prospecting *etc.*	x4 Modular	Integration in cabinet	Automation
	Fast	Open communication	Robustness and stability

PGC 490
Technical specifications

General specifications

Dimensions (mm):	H 500; D 262; W 465
Weight:	45 kg

Environmental conditions

Temperature:	0 to 50 ºC
Relative humidity:	0 to 95 % non-condensing
Altitude:	up to 2000 m
Use:	indoor or outdoor

Classification

Conforms to ATEX Directive 2014/34/UE
and EMC norms EN 61000 and EN 61326-1

Utilities

Power supply input:	220 - 240 VAC, 50 to 60 Hz
Power consumption:	10 A max
Carrier gas:	1 to 2 carrier gases at 5.5 bar
Carrier gas type:	Helium, Argon, Nitrogen, Hydrogen
Carrier gas consumption:	10 mL/min/module
Carrier gas purity:	99.9995 % minimum

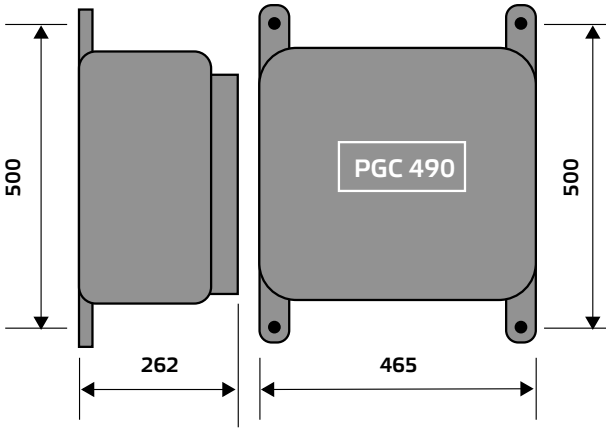
Safety area

Ex db IIC T5 Gb

Sampling

Sample:	gas or vapour samples only
Sample pressure:	ATM to 14.5 psi max (1 bar)
Sampling pump:	up to 2 independent sampling pumps
Stream selector (option):	up to 4 electrovalves. Optional driving of external pump

Other possible configurations on demand



Chromatographic specifications

Injector type:	micro-machined injector with no moving parts; Variable volume;
Optional:	heated injector and backflush capability
Injection volume:	1 to 10 µL, software-selectable.
Column:	capillary fused silica column from 200 µm to 320 µm, stationary phase depending on the application.
Column temperature:	isothermal operation, ambient +15 ºC to 180 ºC.
Detector:	micro-machined thermal conductivity detector (µTCD) using Wheatstone bridge design (internal volume 200 nL)
Linear dynamic range:	10^6 for most of the compounds.
Repeatability:	<0,5 % RSD for propane at 1 mol % level for WCOT columns at constant temperature and pressure.

Communication

Ethernet with possibility of an embedded computer.

I/O

Output:	configurable relay outputs.
Optional analog signals:	4-20 mA inputs/outputs.
Digital inputs:	0 - 10 V, external start or sampling default (optional), etc ...

Driving software

Acquisition and processing software:	Soprane II, french, english.
Operating system:	Windows 7 - 32/64bits or higher.
Modbus (Ethernet/RS):	configurable.

Specific calculation

Option:	NGA/RGA ISO-6976, LPG ISO 8973/7941/6578, combustion gas, customized

Applications

Compounds analysed:	fixed gases (He, H_2, O_2, N_2); hydrocarbons C_1 to C_{10}, H_2S, CO_2, COS, N_2O, mercaptans, BTEX, etc ...
Application fields:	natural gas, refining gas, fuel cell, catalysis, biogas, process gas, etc ...

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

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

srainstruments.com

SRA INSTRUMENTS ANALYTICAL SOLUTIONS

Agilent Premier Solutions Partner