AQUAGAS MONITORING SYSTEMS

ProCeas® Gas Analyser

Description The **ProCeas** is a complete pre-calibrated multicomponent (H2S, CO, CO2, H2, H2O, HCl, HCN, HF, N2O, NH3, O2 and CH4) **laser Infrared Spectrometer** designed for online monitoring of combustion process, natural gas (LNG), pure gas (trace) and ambient air (trace). The **ProCeas** features the exclusive LPS **Low Pressure Sampling System** enabling efficient installation and reduced operating cost by eliminating the need for "heated" sampling system. It uses the patented **OFCEAS** IR laser technology for enhanced specificity, selectivity, accuracy and stability (no span or zero drift).

Applications The **ProCeas analyser** fulfils the requirements of waste recycling facilities, large scale methanation processes, refineries, coal seam gas, gas production lines, biogas and syngas plants. Highly durable to harsh process conditions , the **ProCeas** is a field proven, reliable, robust, cost-effective and user friendly solution for online process gas monitoring.

AP2e True innovation in online gas analysis, the patented OFCEAS and LPS technologies offer numerous advantages in terms of operation and performance. With the **LaserCEM** and **ProCeas** analysers, AP2e has established a strong position in a large field of application with references such as Veolia, Exxon, GDF Suez, Air liquide…

ProCeas® Key Features

- **True Direct Extractive CEMS (No sample treatment) -** 100mbar sampling pressure removes any risk of chemical adsorption, desorption and condensation along the sample line.
- **Interferences Free** - OFCEAS technology provides exceptional selectivity, enabling simultaneous monitoring of multicomponent without interferences, regardless of the gas matrix.
- **Ease of integration** - The LaserCEM allows digital (Ethernet, RS485, RS232, ModBus) analogue and TDR IOs.
- **No Drift** - The zero is contained in the signal, enabling automated and intrinsic zero drift compensation.
- **Field proven** - The ProCeas is free of optical moving part and was designed and built strictly for industrial and on-board mobile applications.
- **Low maintenance** - The LPS system allows flow low rates within 3 and 9l/h without affecting the response time and reducing considerably dust and materials build-up.

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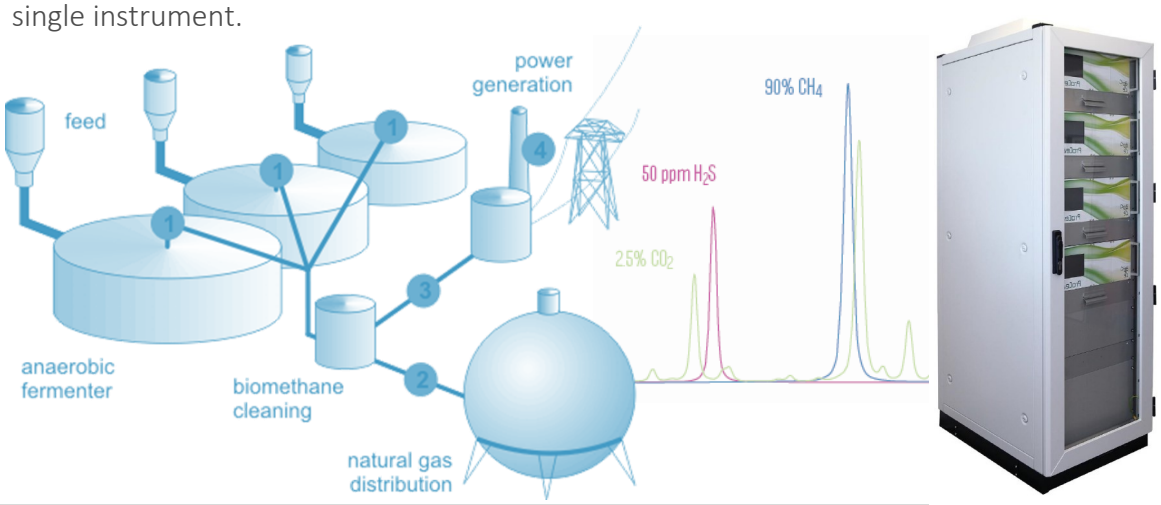
ProCeas® Multipoint Monitoring System

The ProCeas technology enables cost effective sampling solutions tailored to the needs of today's industrial applications with **automated sampling sequences** and **multipoint monitoring** enabling fast, accurate and detailed analysis of several components at various location with a single instrument.



ProCeas® Analyser - General Specifications

INTEGRATION	
Dimensions	Standard 19" 4U rack unit - 550mm depth
Weight	20kg
Flow	3 to 9 lph
Sample	Temp 600C max.
	Pressure 1 atm. +/- 100mbar at the sampling point
Sampling Line	No heating required if: Ambient temp> 10C and H2O<40% vol.
	Heating required if: Ambient temp<10C and H2O>40% vol.
Drift	None
Response time	1s to 200 s depending on sample line
Interface	5.7" touch screen
	Windows XP / WinProceas
Output	Ethernet / RS485 / RS232 / ModBus
Options	ATEX - Wall mount version
Power supply	110-240 VAC 50/60 Hz - 200W
Operating conditions	Temp 15-35C Pressure 86-108kPa
	Compressed air 1-6 bar (oil free)

GAS	RANGE		LOD	
	min	max	min	max
Formaldehyde	10ppm	1%	1ppb	10ppm
H2S	50ppm	10%	2ppb	100ppm
CH4	50ppm	100%	1ppb	1000ppm
CO	100ppm	100%	1ppb	1000ppm
CO2	50ppm	100%	2ppb	1000ppm
H2	1000ppm	100%	3ppm	200ppm
H2O	1ppm	100%	1ppb	1000ppm
HCl	5ppm	100%	1ppb	1000ppm
HCN	10ppm	100%	1ppb	1000ppm
HF	10ppm	1%	1ppb	10ppm
N2O	50ppm	100%	2ppb	1000ppm
NH3	50ppm	100%	1ppb	1000ppm
O2	1000ppm	100%	5ppm	1000ppm
NO	5000ppm	100%	100ppb	1000ppm
NO2	100ppm	100%	10ppb	1000ppm

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