ABYSS ® Online BioGas Analysers

Description - The **ABYSS BioGas** NDIR gas analyser series is specially designed for continuous and simultaneous monitoring of primary biogas constituents CH4, CO2, O2 and H2S. The ABYSS BioGas fulfils the requirements of waste recycling facilities and associated odour filtration systems. It is based on the **micro-flow type non-dispersive infrared (NDIR)** method for CH4 and CO2, and uses a **Thermal Conductivity Detector (TCD)** for H2S and O2.

Applications - Standards applications are wastewater treatment plant, odour control system, landfill, anaerobic digestion and other fermentation processes.

Highly durable to harsh process conditions - The **ABYSS BioGas 19"inch rack mount enclosure** fitted with LCD screen, safety filter and built-in flowmeter enables efficient long term measurement of up to 4 gases in emissions and process gas. An automatic built-in gas diluter reduce instruments recovery time in case of high and unstable gas concentrations.

The ABYSS analysers are built, calibrated and factory tested in Belgium and certified **C.E.** by **Ankersmid Sampling BVBA**.

ABYSS ® ABG

High Performance Online Monitoring

CO2 CH4 H2S O2

ANKERSMID Sampling

ABYSS ® Key Features

- Proprietary infrared single beam Micro-Flow NDIR detectors Cross interference compensation
- RS 232 serial com port for real-time data download to external PC or laptop as text file,
- Cost-effective BioGas online monitoring solutions
- Fully automatic standalone system for fast, accurate and reliable analysis of primary biogas constituents
- Keyboard / LCD display interface for configuration & calibration
- Online monitoring of 4 gases simultaneously
- 19 inch rack mount enclosure
- Stainless steel connectors for gas inlet/outlet and zero air inlet ports, Built-in Sampling Pump and flowmeter
- Dual CEMS (2 streams simultaneously) and multiplexed (up to 4 streams) systems empowering cost efficient multipoint monitoring
- PFA and PTFE gas path

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BioGas Stationary Monitoring System

When sampling gas from landfill, anaerobic digestion/bacteria and other fermentation processes, the use of a dedicated sampling system is necessary to ensure application specific sample preparation and to preserve your monitoring equipment. AquaGas Sampling solutions cover a large range of applications and enable efficient BioGas online measurement with **automated sampling sequences, multipoint monitoring, high performance gas conditioning and deep filtration features.**

ABYSS ® Specifications

INTEGRATION	
Dimensions	19inch rack mount unit
Weight	432x420x132mm wxhxd 12kg
Flow	0.7 to 1.2 lpm
Response time	TD+T90 < 15s (NDIR)
Warm- up time	5 min
inlet pressure	2kPa - 50kPa
Interface	LCD display + keyboard
Output	RS232 / 4-20mA / dry contact alarm
Power supply	240 VAC 50 +/-1Hz
Operating conditions	Temp 0-50C Pressure 86-108kPa Humidity 5-85% non-condensing

GAS	MODELS	APPLICATIONS
CH4 - CO2 - H2S - O2	ABG700	BioGas
CH4 - CO2 - H2S	ABG600	BioGas
CH4 - CO2 - O2	ABG500	BioGas
CH4 - CO2	ABG400	BioGas
CH4 - H2S	ABG300	BioGas
CH4 - O2	ABG200	BioGas
CH4	ABG100	BioGas

GAS	TECHNOLOGY	RANGE (max/min)	PRECISION	RESOLUTION	REPEATABILITY
CO2	NDIR	0 - 50 %	≤±2% FS	0.1%	≤±2% FS
CH4	NDIR	0 - 100 %	≤±2% FS	0.1%	≤±2% FS
H2S	TCD	0 - 10 000PPM	≤±3% FS	1PPM	≤±2% FS
O2	TCD	0 - 25 %	≤±3% FS	0.1%	≤±2% FS

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