



## ABYSS® Portable Biogas Multigas Analyser

**Description** - The ABYSS BioGas NDIR portable gas analyser is specially designed for short-term simultaneous monitoring of primary biogas constituents CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub> and H<sub>2</sub>S. 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 CH<sub>4</sub> and CO<sub>2</sub>, and uses a **Thermal Conductivity Detector (TCD)** for H<sub>2</sub>S and O<sub>2</sub>.

**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 uses a dual beam IR cell highly resistant to corrosive flue gases and harsh environments of operation. Its **light weight rugged enclosure** fitted LCD screen, safety filter and Stainless fittings enables efficient short term measurement of emissions and process gas.

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

## High Performance Process Monitoring



**ANKERSMID  
Sampling**

## ABYSS® Key Features

- Proprietary infrared single beam Micro-Flow NDIR detectors with built-in cross interference compensation
- Online monitoring of 4 gases simultaneously
- RS 232 serial com port for real-time data download to external PC or laptop as text file,
- Rugged enclosure. Reliable and easy to operate with Side-mount built-in filter
- Field proven technology for fast, accurate and reliable analysis of primary biogas constituents
- Stainless steel connectors for gas inlet/outlet and zero air inlet ports, Built-in Sampling Pump and flowmeter
- Keyboard / LCD display interface for configuration & calibration
- PFA and PTFE gas path



# BioGas Portable Multigas Analyser

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. The use of the **APS Portable sampling system** and **APP sampling probe** in combination with the **ABYSS ABG** enables efficient source testing operations with automated sampling sequences, high performance gas conditioning and heated filtration.



## ABYSS® Specifications

	INTEGRATION	GAS	MODELS	APPLICATIONS
<b>Dimensions</b>	Rugged field proof enclosure	<b>CH4 - CO2 - H2S - O2</b>	ABG700	BioGas
<b>Weight</b>	432x420x132mm wxhxd 12kg	<b>CH4 - CO2 - H2S</b>	ABG600	BioGas
<b>Flow</b>	0.7 to 1.2 lpm	<b>CH4 - CO2 - O2</b>	ABG500	BioGas
<b>Response time</b>	TD+T90 < 15s (NDIR)	<b>CH4 - CO2</b>	ABG400	BioGas
<b>Warm- up time</b>	5 min	<b>CH4 - H2S</b>	ABG300	BioGas
<b>inlet pressure</b>	2kPa - 50kPa	<b>CH4 - O2</b>	ABG200	BioGas
<b>Interface</b>	LCD display + keyboard	<b>CH4</b>	ABG100	BioGas
<b>Output</b>	RS232 / 4-20mA / dry contact alarm			
<b>Power supply</b>	240 VAC 50 +/-1Hz			
<b>Operating conditions</b>	Temp 0-50C Pressure 86-108kPa Humidity 5-85% non-condensing			

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

