



### ABYSS ASG Portable SynGas Analysers

**Description** - The **ABYSS SynGas NDIR** gas analyser series is specially designed for short term monitoring of up to 6 components in Syngas.

It is based on the **micro-flow type non-dispersive infrared (NDIR)** method for CnHm, CH4, CO, CO2 and uses a **Thermal Conductivity Detector (TCD)** for H2 and O2.

**Applications** - With built-in BTU Calculation, standards applications are pyrolysis and gasification processes control in the Oil & Gas, research or certification of Continuously Emission Monitoring System .

**Highly durable to harsh process conditions** - The **ABYSS SynGas** 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** - ABYSS analysers are built, calibrated and factory tested in Belgium and certified CE by Ankersmid Sampling BVBA.

### Performance in Source Testing



**ANKERSMID**  
Sampling

### KEY FEATURES

- Proprietary infrared single beam Micro-Flow NDIR detectors
- Short term monitoring of 6 gases simultaneously
- Cross interference compensation
- RS 232 serial com port for real-time data download to external PC or laptop as text file, software included
- Rugged enclosure. Reliable and easy to operate with Side-mount built-in filter
- On-board BTU calculation and real-time display of BTU index.
- Stainless steel connectors for gas inlet/outlet and zero air inlet ports
- Keyboard / LCD display interface for configuration & calibration
- Built-in Sampling Pump



# Portable Emissions & Process Monitoring System

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



## Specifications and instrument versions

INTEGRATION		GAS	MODELS	APPLICATIONS
<b>Dimensions</b>	Rugged case unit 439x290x152mm wxhxd	<b>CO - CO2 - H2 - O2 - CH4 - CnHm - BTU</b>	ASG800	SynGas
<b>Weight</b>	6.5kg	<b>CO - CO2 - H2 - O2 - CH4 - BTU</b>	ASG700	SynGas
<b>Flow</b>	0.7 to 1.2 lpm	<b>CO - CO2 - H2 - CH4 - BTU</b>	ASG600	SynGas
<b>Response time</b>	< 10s (NDIR)	<b>CO - CO2 - O2 - CH4</b>	ASG500	SynGas
<b>Warm- up time</b>	5 min	<b>CO - CO2 - O2</b>	ASG400	SynGas
<b>Precision</b>	Better than +/-1% relative	<b>CO - CO2</b>	ASG300	SynGas
<b>Repeatability</b>	Better than +/- 0.7% relative	<b>CO - O2</b>	ASG200	SynGas
<b>inlet pressure</b>	2kPa - 50kPa	<b>CO or CO2 or CH4 or H2 (%)</b>	ASG100	SynGas
<b>Number of ports</b>	2 inlets as standards			
<b>Output</b>	RS232 / 4-20mA			
<b>Power supply</b>	240 VAC 50/60 Hz - Li-ion battery			
<b>Operating conditions</b>	Temp 0-50C Pressure 86-108kPa Humidity 5-85%			

GAS	TECHNOLOGY	RANGE (max/min)	PRECISION	RESOLUTION	REPEATABILITY
CO	NDIR	0 - 40 %	≤±2% FS	0.01%	≤±1% FS
CO2	NDIR	0 - 20 %	≤±2% FS	0.01%	≤±1% FS
CH4	NDIR	0 - 10 %	≤±2% FS	0.01%	≤±1% FS
CnHm	NDIR	0 - 5 %	≤±2% FS	0.01%	≤±1% FS
H2	TCD	0 - 55 %	≤±3% FS	0.01%	≤±1% FS
O2	TCD	0 - 25 %	≤±3% FS	0.01%	≤±1% FS