



ANKERSMID Online Infrared Analyzer ABYSS BioGas Series 100-700



* Picture may vary

Application

The general applications are Landfill, Flare and Biogas plants.

Description

The analyzers can be used for measurement of the concentration of up to 4 gases such as CO₂, CH₄, H₂S and O₂ components in sample gases simultaneously. It is based on the single source dual-beam non-dispersion infrared (NDIR) method for CO₂, CH₄ and the fuel cell method (ECD) for H₂S and O₂. This analyzer is designed with a digital pulsable infrared source and dual-beam systems.

- **Up to 4 gases measurement with combination of NDIR, fuel cell and ECD gas sensor technology**
- **Simple construction with pulsable infrared source and dual-beam technology**
- **Constant temperature control of gas bench for high stability**
- **320*240 LCD display with menu operation**
- **Integrated flow meter with needle valve**
- **Automatic zero calibration**

Version	Part number	Gas components
ABYSS BioGas 700	ABG 700	CO ₂ +CH ₄ +H ₂ S+O ₂
ABYSS BioGas 600	ABG 600	CO ₂ +CH ₄ +H ₂ S
ABYSS BioGas 500	ABG 500	CH ₄ +CO ₂ +O ₂
ABYSS BioGas 400	ABG 400	CH ₄ +CO ₂
ABYSS BioGas 300	ABG 300	CH ₄ +H ₂ S
ABYSS BioGas 200	ABG 200	CH ₄ +O ₂
ABYSS BioGas 100	ABG 100	CH ₄



ANKERSMID Online Infrared Analyzer
ABYSS BioGas Series 100-700

Technical data

Specifications					
Measurement		CO ₂ , CH ₄ , O ₂ , H ₂ S			
Calculation		High heating value or low heating value in MJ/m ³ or kcal/m ³			
Gas flow		0.7 - 1.2 l/min, external flow meter with needle valve			
Pressure of gas inlet		< 1bar			
Sampling gas requirement		Remove water vapor, dust (<1um) and oil			
Response time		<10s (NDIR)			
Warm-up time		15 min			
Interface		RS232 (real time and memory data download software included)			
Output		4 - 20mA (can be customized)			
Technology		CO ₂ , CH ₄ : proprietary dual-beam NDIR detectors H ₂ S: ECD O ₂ : galvanic fuel cell method			
Display		LCD 240 x 128 with back-light function Simultaneous indication of the 7 measures and units Programmable auto-zero function, incl. internal pump, relay and solenoid valve			
Data logging		Up to 1500 sets of data; logging rate adjustable from 3 to 99 sec Possibility to identify 10 different sites and up to 100 measuring points			
Operating temperature		0 to +50°C			
Relative humidity		5 - 85%			
Ambient air pressure		86 – 108kPa			
Power supply		230V/50Hz			
Dimension		483mm x 373mm x 140mm (W x L x H)			
Weight		± 12Kg			
Gas	Method	Range	Resolution	Precision	T90
CO ₂	NDIR	0-50%, 0-100%	0,1%	≤2% FS	<10s
CH ₄	NDIR	0-100%	0,1%	≤2% FS	<10s
H ₂ S	ECD	0-5000ppm, 0-10000ppm	1ppm	≤3% FS	<30s
O ₂	Fuel cell	0-25%	0,01%	≤3% FS	≤2%



ANKERSMID Portable Infrared Analyzer
ABYSS BioGas Series 100P-700P



Application

The general application are Landfill, Flare and Biogas plants.

Description

The ABYSS portable infrared SynGas analyzer is powered by Li-ion battery and can be used without AC power supply.

The analyzers can be used for measurement of the concentration of up to 4 gases such as CO₂, CH₄, H₂S and O₂ components in sample gases simultaneously. It is based on the single source dual-beam non-dispersion infrared (NDIR) method for CO₂, CH₄ and the fuel cell method (ECD) for H₂S and O₂. This analyzer is designed with a digital pulsable infrared source and dual-beam systems.

A nylon carrying bag for analyzer and accessories is included as standard.

* Picture may vary

- **Up to 4 gases measurement with combination of NDIR, fuel cell and ECD gas sensor technology**
- **Simple construction with pulsable infrared source and dual-beam technology**
- **Constant temperature control of gas bench for high stability**
- **320*240 LCD display with menu operation**
- **Integrated flow meter with needle valve**
- **Automatic zero calibration**

Version	Part number	Gas components
ABYSS BioGas 700P	ABG 700P	CO ₂ +CH ₄ +H ₂ S+O ₂
ABYSS BioGas 600P	ABG 600P	CO ₂ +CH ₄ +H ₂ S
ABYSS BioGas 500P	ABG 500P	CH ₄ +CO ₂ +O ₂
ABYSS BioGas 400P	ABG 400P	CH ₄ +CO ₂
ABYSS BioGas 300P	ABG 300P	CH ₄ +H ₂ S
ABYSS BioGas 200P	ABG 200P	CH ₄ +O ₂
ABYSS BioGas 100P	ABG 100P	CH ₄



ANKERSMID Portable Infrared Analyzer
ABYSS BioGas Series 100P-700P

Technical data

Specifications					
Measurement	CO ₂ , CH ₄ , O ₂ , H ₂ S				
Calculation	High heating value or low heating value in MJ/m ³ or kcal/m ³				
Gas flow	0.7 - 1.2 l/min, external flow meter with needle valve				
Pressure of gas inlet	< 1bar				
Sampling gas requirement	Remove water vapor, dust (<1um) and oil				
Response time	<10s (NDIR)				
Warm-up time	15 min				
Interface	RS232 (real time and memory data download software included)				
Output	4 - 20mA (can be customized)				
Technology	CO ₂ , CH ₄ : proprietary dual-beam NDIR detectors H ₂ S: ECD O ₂ : galvanic fuel cell method				
Display	LCD 240 x 128 with back-light function Simultaneous indication of the 7 measures and units				
	Programmable auto-zero function, incl. internal pump, relay and solenoid valve				
Data logging	Up to 1500 sets of data; logging rate adjustable from 3 to 99 sec Possibility to identify 10 different sites and up to 100 measuring points				
Operating temperature	0 to +50°C				
Relative humidity	5 - 85%				
Ambient air pressure	86 – 108kPa				
Power supply	230V/50Hz Autonomy of > 4h with pump in operation				
Dimension	380mm x 140mm x 225mm (W x L x H)				
Weight	± 5Kg				
Gas	Method	Range	Resolution	Precision	T90
CO ₂	NDIR	0-50%, 0-100%	0,1%	≤2% FS	<10s
CH ₄	NDIR	0-100%	0,1%	≤2% FS	<10s
H ₂ S	ECD	0-5000ppm, 0-10000ppm	1ppm	≤3% FS	<30s
O ₂	Fuel cell	0-25%	0,01%	≤3% FS	≤2%