

# MCA 100 BIO

MULTICOMPONENT ANALYZER FOR **BIOGAS**



- Analysis of CO<sub>2</sub>, CH<sub>4</sub>, O<sub>2</sub>, H<sub>2</sub>S
- NDIR technology for CO<sub>2</sub> and CH<sub>4</sub>
- Automatic air purge for long life H<sub>2</sub>S cell
- Arm Processor
- Touch Screen monitor
- Ethernet and USB Remonting
- Analog & Digital Signal Output
- Low cost ownership
- 19 “ Rack mounting or Wall mounting version
- Modbus, Profibus, Ethernet ( optional )
- Autozero
- Data downloadable on SD Card

The MCA 100 Bio series of gas analyzers by ETG it's the ideal solution for biogas measurement and industrial combustion applications because of their accuracy, stability, reliability, broad measurement range, and the variety of available form factors.

Unlike other analyzers, ETG MCA 100 non-dispersive infrared (NDIR) gas analyzers measure multiple gases in an instrument with a single optical path platform.

Single-gas analyzers are inadequate when using methane as a biofuel because the gas often contains large amounts of CO as a contaminant. ETG analyzers have the ability to measure CO<sub>2</sub>, CO, and O<sub>2</sub> in addition to methane and therefore provide the optimal combination of gases for combustion optimization.

The enhanced optics and electronics of our NDIR analyzers have virtually eliminated zero drift after the initial warm up period. The temperature and pressure compensation eliminates the major causes of span drift in many NDIR instruments.

## MCA 100 BIO MULTICOMPONENT ANALYZER FOR BIOGAS

Measurement Method	Gas	Resolution	Range	Accuracy	Precision	Time
NDIR ( Non-Dispersive Infrared )	<b>Methane</b>	0,01%	0-100%	+/- 1% F.S.	+/- 0,8%	T <sub>90</sub> & T <sub>10</sub> <10 seconds
			201ppm-40%	+/- 2% rel		
			40-80%	+/- 1% rel		
			80-100%	+/- 5% rel		
NDIR ( Non-Dispersive Infrared )	<b>Carbon Dioxide</b>	0,01%	0-50%	+/- 0,8 F.S.	+/-0,7%	T <sub>90</sub> & T <sub>10</sub> <10 seconds
			0.00-16.00%	+/- 0,3% abs or +/- 3.0% rel	+/- 0,1% abs or +/- 0.8% rel	
			16.01-20.00%	+/- 5% rel		
Electro-chemical sensor	<b>Oxygen</b>	0,01%	1.01-25.00%	+/- 0,1% abs or +/- 3.0% rel	+/- 0,1% abs or +/- 1.5% rel	< 40 seconds from ambient to 0.15 O2
Electro-chemical sensor	<b>Hydrogen Sulfide</b>	1 ppm	0-2000 ppm 0-5000 ppm	+/- 5 ppm abs or +/- 3.0% rel	+/- 5 ppm abs or +/- 3.0% rel	T <sub>90</sub> & T <sub>10</sub> <20 seconds

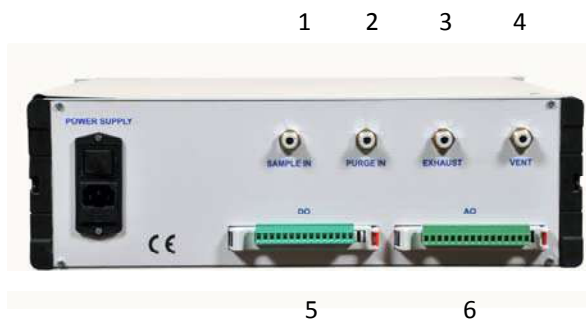
### SPECIFICATIONS

<b>Response Time</b>	Response times are specified at a sample flow rate of a 1 liter per minute through the MCA 100 sample cell
<b>Data Refresh Rate</b>	1 second
<b>Warm-up Time</b>	30 seconds ready,3 minutes useable,30 minutes to full performance
<b>Operating Temperature</b>	0° to 70° C ( 32° to 158° F)
<b>Operating Humidity</b>	To 95% RH ( Non-condensing)
<b>Operating Altitude</b>	-300 to 3.000 m ( -1.000 to 10.000 ft )
<b>Communications (optional)</b>	Ethernet – Profibus – Modbus
<b>Analog Signal Output</b>	4-20 ma for each measured compound

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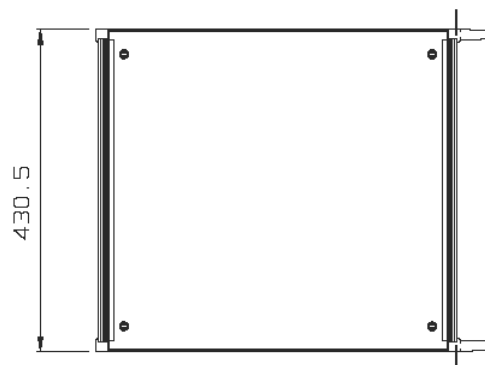
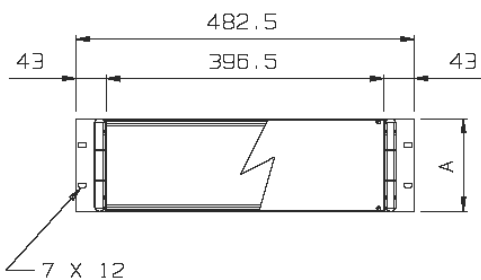
<b>Digital Output</b>	Configurable for gas concentration, analyzer fault, high temperature, etc..
<b>Monitor</b>	Touch Screen 5.7" Resistive type
<b>Calibration</b>	Zero & span user selectable. Automatic calibration ( optional)
<b>Electrical supply</b>	from 100 to 240 Vac 47-63 Hz
<b>Pneumatic connection</b>	Rapid fittings 6.0 OD 4.0 ID
<b>Mechanical dimensions</b>	132,5 x 495,0 x 430,5 mm
<b>Weight</b>	15.75 kg

### PNEUMATIC/ELECTRIC



1	
2	Purge In
3	Exhaust
4	Vent
5	Digital Out
6	Analog Out

### MECHANICAL DIMENSIONS



### Other Version of Biogas Analyzers

- Wall mounting Biogas analyzer version model 6500
- Portable Biogas analyzer model 3200 P

[www.analisi-biogas.com](http://www.analisi-biogas.com)  
[www.etgrisorse.com](http://www.etgrisorse.com)

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