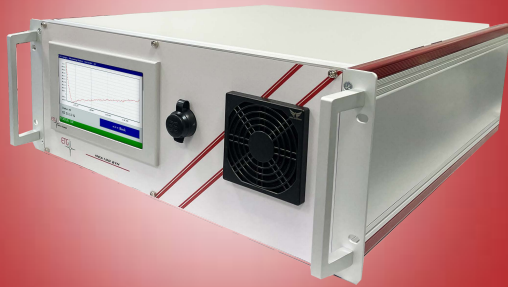


# Discover

## ETG MCA 100 BIO

multicomponent gas analyzer for Biogas



### $O_2$ , $CO_2$ , $CH_4$ , $H_2S$

## MONITORING

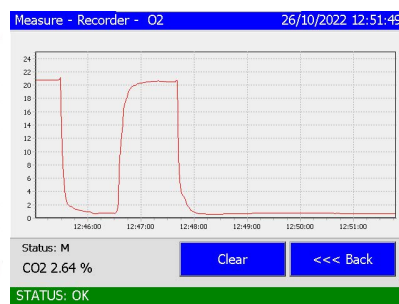
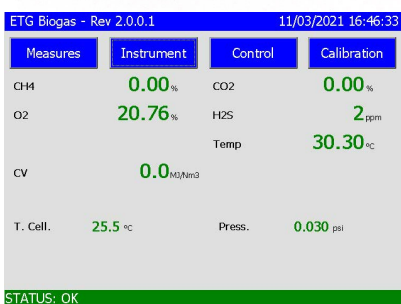
Suitable for applications:

- Biogas Plants
- Research Center
- Water Treatment Plant
- Biogas System Integrator
- Biomethane Upgrading

The ETG **MCA 100 Bio** series of gas analyzers by ETG are the ideal solution for Biogas/Biomethane upgrading measurement because of their accuracy, stability, reliability, broad measurement range, and the variety of available form factors. Unlike other analyzers, ETG MCA 100 Bio non-dispersive infrared (NDIR) gas analyzers measure multiple gases in an instrument with a single optical path platform. ETG analyzers have the ability to measure  $CO_2$ ,  $H_2S$  and  $O_2$  in addition to methane, and therefore provide the optimal combination of gases measurement for Biogas/Biomethane plants. We can measure  $H_2S$  by NDUV technology that is maintenance free and doesn't need Electrochemical cells replacement.

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 the instruments.

### USER INTERFACE OVERVIEW



- Data downloadable on USB Pen Drive
- Arm processor
- Touch Screen monitor
- Ethernet, Wi-Fi and USB Remoting
- Low cost of ownership
- Modbus, Profibus, Ethernet (optional)
- Plug & Play
- Customizable



# SPECIFICATIONS

- NDIR (for CO<sub>2</sub> and CH<sub>4</sub>) & ECD (for H<sub>2</sub>S, O<sub>2</sub>) technology
- N<sub>2</sub> and calorific value calculated by proprietary algorithm (standard)
- Dust filter front panel
- Condensate Removal System
- Multipoint Sampling system
- Highly modular & High performance
- Totally developed in Italy

<b>Response Time</b>	Response time are specified at a sample flow rate of 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 full performance
<b>Operating Temperature</b>	0° to 50° C
<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>Calibration</b>	Zero & Span user selectable
<b>Power consumption</b>	30 W
<b>Communications</b>	USB port (standard) - ETHERNET (standard)
<b>External Electrical Supply</b>	from 100 to 240 Vac 47-63 Hz (upon request)
<b>Display</b>	Touch Screen 5.7" Resistive Type
<b>Pneumatic Connection</b>	Rapid fittings 6.0 OD 4.0 ID
<b>Rack Dimensions &amp; Weight</b>	19" x 4hE x 550 mm - 11 Kg

# TECHNICAL DATA

Measurement Method	Gas	Resolution	Range	Accuracy	Precision	Time
NDIR (Non-Dispersive Infrared)	Methane	0,01%	0-100%	+/-1% F.S.	+/-0,8%	T <sub>90</sub> & T <sub>10</sub> < 10 seconds
NDIR (Non-Dispersive Infrared)	Carbon Dioxide	0,01%	0-100%	+/-1% F.S.	+/-1% F.S.	T <sub>90</sub> & T <sub>10</sub> < 10 seconds
Electrochemical sensor	Oxygen	0,1%	0-25%	+/-2% F.S.	+/-2% F.S.	<30 seconds from ambient to 0.15 O <sub>2</sub>
Electrochemical Sensor	Hydrogen Sulphide	0,1 ppm	0-100 ppm 0-200/1000 ppm 2000/5000/ 10000 ppm	+/-2% F.S.	+/-2% F.S.	T <sub>90</sub> & T <sub>10</sub> < 20 seconds

\*other ranges on request