Discover

ETG MCA 100 BIO P

multicomponent gas analyzer for Biogas

CO_2, CH_4, O_2, H_2S (*NH_3,H_2 optional*)

MONITORING

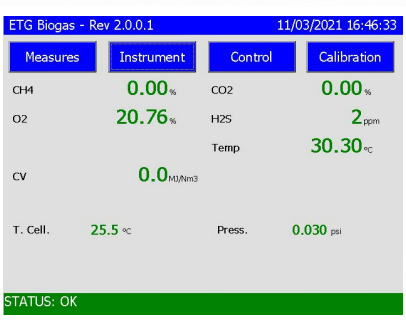
Suitable for **applications:**

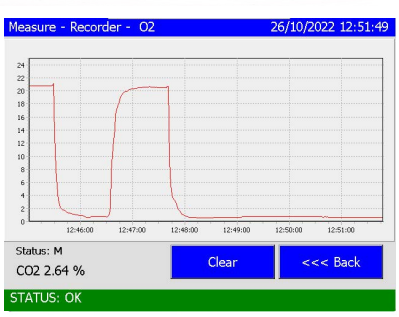
- BIOGAS PLANTS
- BIOMETHANE UPGRADING
- RESEARCH CENTER
- WATER TREATMENT PLANT
- BIOGAS SYSTEM INTEGRATOR

The **MCA 100 Bio** series of gas analyzers by ETG are 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_2 as a contaminant. ETG analyzers have the ability to measure CO_2, H_2S and O_2 in addition to methane, providing the optimal combination of gases analysis for Biogas/Biomethane process. 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*
- *Touch Screen monitor*
- *Ethernet, Wi-Fi and USB Remoting*
- *Low cost of ownership*
- *Portable version with battery pack*

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SPECIFICATIONS

- NDIR (for CO_2 and CH_4) & ECD (for H_2S, O_2) technology
- N_2 and calorific value calculated by proprietary algorithm (standard)
- Dust filter front panel
- Internal sample pump
- Impact resistant housing
- Totally developed in Italy

Response Time	Response time are specified at a sample flow rate of 1 liter per minute through the MCA 100 sample cell
Data Refresh Rate	1 second
Warm-up Time	30 seconds ready, 3 minutes useable, 30 minutes full performance
Operating Temperature	0° to 50° C
Operating Humidity	To 95% RH (Non-condensing)
Operating Altitude	-300 to 3.000 m (-1.000 to 10.000 ft)
Communications	USB port (standard)
Case protections	IP65
Monitor	Touch Screen 5.7" Resistive Type
Calibration	Zero & Span user selectable
External Electrical Supply	from 100 to 240 Vac 47-63 Hz
Pneumatic Connection	Rapid fittings 6.0 OD 4.0 ID
Mechanical Dimensions & Weight	339 x 295 x 152 mm 2.5 Kg
Battery Life **Power Consumption**	8 hours 10 W

TECHNICAL DATA

Measurement Method	Gas	Resolution	Range (*)	Accuracy	Precision	Time
NDIR (Non-Dispersive Infrared)	Methane	0,01%	0-100%	+/-1% F.S.	±1% f.s.	T_{90} &T_{10}< 10 seconds
NDIR (Non-Dispersive Infrared)	Carbon Dioxide	0,01%	0-100%	±1% f.s.	±1% f.s.	T_{90} &T_{10}<10 seconds
Electrochemical sensor	Oxygen	0,1%	0 -25%	±2% f.s	±2% f.s	from ambient to 0.15 O_2
Electrochemical sensor	Hydrogen Sulphide	0,1 ppm	0-100 ppm 200/1000ppm 2000/5000/ 10000 ppm	±2% f.s.	±2% f.s	T_{90} &T_{10}<30 seconds

(*) Others range on request

Anemometer flow meter

Streamline Measuring Head	±20 degrees
Response Time of electronic	5.2 ms to reach 63% of end value
Responsive Time of Vanes	1 s increase flow
Responsive Time of Vanes	8 s decrease flow

Thermocouple type K

Class	1
Temperature	-40 to +1000°C
Tolerance value	±1.5°C