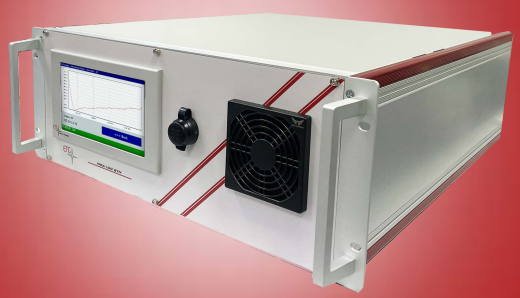
Discover

ETG MCA 100 SYN

multicomponent gas analyzer for Syngas



O_2, CO_2, CO, CH_4, H_2, C_nH_m

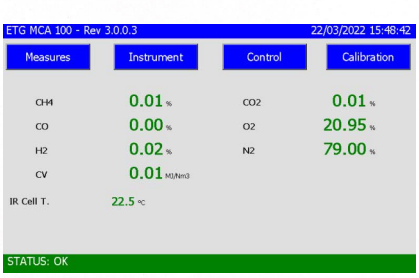
MONITORING

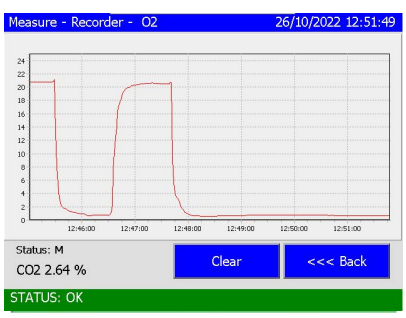
Suitable for applications:

- Syngas Plants
- Hythane Plants
- Research Center
- Syngas System Integrator

The **ETG MCA 100 SYN** series of gas analyzers by ETG are the ideal solution for Syngas measurement applications because of their accuracy, stability, reliability, broad measurement range, and the variety of available form factors. Unlike other analyzers, ETG MCA 100 SYN P non-dispersive infrared (NDIR) gas analyzers measure multiple gases in the instrument in special wavelenght regions, interferences free from the other components. The TCD detector used for H_2 analysis is automatically corrected via proprietary algorithm for possible interferences by other gases. ETG analyzers have the ability to measure CH_4, CO_2, CO, C_nH_m, H_2 and O_2 providing the optimal combination of gases for Syngas process 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 the instruments.

USER INTERFACE OVERVIEW





- *Cross sensitivity compensation*
- *Arm processor*
- *Touch Screen monitor*
- *Ethernet and USB Remoting*
- *Low cost of ownership*

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SPECIFICATIONS

- NDIR (for CO_2 CO and CH_4) & TCD (for H_2) technology
- N_2 and Heat value calculated by proprietary algorithm (standard)
- TCD for H_2
- Sample conditioning system (optional)
- Automatic Autozero free selectable
- 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	From to 10 to 20 minutes (depending on external temperature)
Operating Temperature & Humidity	0° to 70° C (32° to 158° F) To 95% RH (Non-condensing)
Operating Altitude	-300 to 3.000 m (-1.000 to 10.000 ft)
Calibration	Zero & Span user selectable
External Electrical Supply	230/115 V 50/60 Hz
Power consumption	50 W
Communications	USB, Ethernet, 4-20mA
Output options	Modbus, Profinet, Profibus…
Display	Touch Screen 7" Resistive Type
Pneumatic Connection	Swagelok 6 mm O.D.
Rack Dimensions & Weight	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_{90} &T_{10} <10 seconds
NDIR (Non-Dispersive Infrared)	Carbon Dioxide Carbon Monoxide	0,01% 0,01%	0-40%*	+/-1% F.S.	+/-0,7% F.S. +/-1% F.S.	T_{90} &T_{10} <10 seconds
Electrochemical sensor	Oxygen	0,1%	0-25.00%	+/-2% F.S.	+/-2% F.S.	<40 seconds from ambient to 0.15 O_2
Thermoconductibility	Hydrogen	0,1%	0-10% 0-20% 0-50% 0-100%	+/-2% F.S.	+/-2% F.S.	T_{90} &T_{10} <20 seconds
NDIR (Non-Dispersive Infrared)	Hydrocarbon	0,01%	0- 5% 0-10% 0-20%	+/-1% F.S.	+/-1% F.S.	T_{90} &T_{10} <10 seconds

*other ranges on request