

# MCA 100 Syn 3 Portable

MULTICOMPONENT ANALYZER FOR **SynGAS**



- ✓ Analysis CO<sub>2</sub>, CH<sub>4</sub>, CO, O<sub>2</sub>, H<sub>2</sub>,
- ✓ NDIR technology for CO<sub>2</sub> CO and CH<sub>4</sub>
- ✓ TCD for H<sub>2</sub>
- ✓ Arm processor
- ✓ Touch screen monitor
- ✓ Ethernet, Wi-fi and USB Remoting
- ✓ N<sub>2</sub> and heat value calculate by proprietary algorithm (standard)

- ✓ Low-cost ownership
- ✓ Portable version with battery pack
- ✓ Modbus, Profibus, Ethernet (optional)
- ✓ Data downloadable on USB-drive
- ✓ Cross-sensitivity compensation
- ✓ Sample conditioning system (optional)
- ✓ Additional CnHm measuring by NDIR detector (optional)

MCA 100 SYN series of gas analyzers 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, 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. The analyzers can 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.

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
			201 ppm-40%	+/- 2% rel		
			40-80%	+/- 1% rel		
NDIR (Non-dispersive infrared)	<b>Carbon Dioxide</b>	0,01%	0-50% 0.00-16.00%	+/- 0,8 F.S. +/- 0,3% abs or +/- 3.0%	+/- 0,7% +/- 0,1% abs or +/- 0.8%	T <sub>90</sub> & T <sub>10</sub> <10 seconds
	<b>Carbon Monoxide</b>	0,01%	0.01-20.00% (up to 40%)	rel +/- 5% rel	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 O <sub>2</sub>
TCD	<b>Hydrogen</b>	0,1 %	0-10 % 0-20% 0 - 50% 0-100 %	+/- 0.5% abs or +/- 3.0% rel	+/- 0.5 abs or +/- 3.0% rel	T <sub>90</sub> & T <sub>10</sub> <20 seconds

## SPECIFICATIONS

Response time	Response times are specified at a sample flow rate of a 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 to full performance
Operating temperature	0° to 70° C (32° to 158° F)
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 protection	IP67 (1 meter submersion for 30 minutes) Def Stan 81-41/STANAG 4280

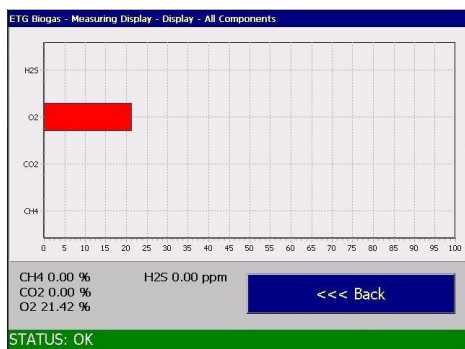
Dokumentname: 6000-2150-0001-0100 Multi-gas analyzer ETG MCA100.docx

## MCA 100 SYN Portable MULTICOMPONENT ANALYZER FOR SYNGAS

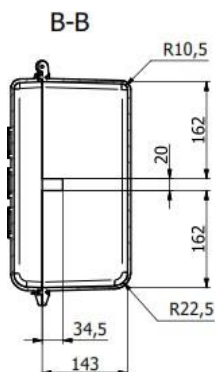
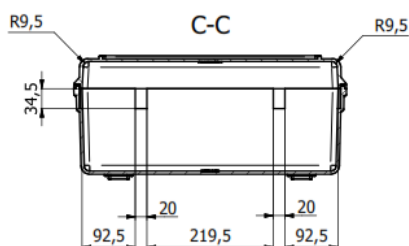
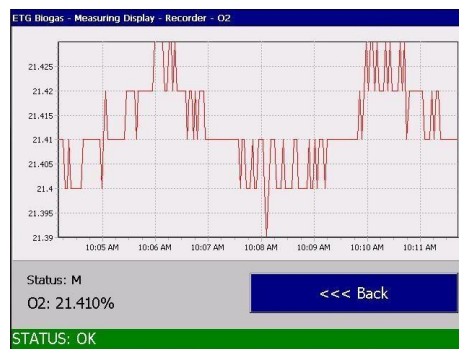
Battery	12 – 24 VDC with Internal Charger and light charge indicator
Monitor	Touch screen 5.7" resistive type
Calibration	Zero & span user selectable
External electrical supply	from 100 to 240 VAC 47-63 Hz
Pneumatic connection	Rapid fittings 6.0 OD 4.0 ID
Mechanical dimensions	50 x 28 x 40 cm
Weight	7.5 kg

## USER INTERFACE OVERVIEW

Bar graph and digital value



Trend and digital value



All MCA 100 and 6500 series for Syngas have remote support and remote access

- File-transfer
- Data monitoring by your PC, tablet and smartphone
- Software-Update



### Other versions of gas analyzers

- Wall mounted Biogas analyzer version model 6500
- 19" Rack Mounting Biogas analyzer model MCA 100 Bio
- Multisampling system for Biogas analysis

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