

SmartCEMS SYNGAS

ONLINE GAS MONITORING SYSTEM

CO | CO₂ | CH₄ | O₂ | H₂ | CxHy

Process analyser for Biogas Plant and Odour Control Systems

Available in Purged & Pressurised enclosure for installation in hazardous areas.
Software providing a powerful user interface for analysis settings, acquisition, trending and reporting capabilities.

DESCRIPTION

Achieve precise Syngas composition monitoring with SmartCEMS® SynGas.

Tailored for Biomass, Direct Reduced Iron (DRI), and Syngas facilities, SmartCEMS® SynGas ensures simultaneous, continuous and precise tracking of CO, CO₂, O₂, N₂, CH₄, and H₂ in gas streams.

Compact yet robust, it meets plant operators' needs and presents a cost efficient substitute to gas chromatographs. Its user-friendly interface allows for seamless customisation. Fully supported by AquaGas with extensive technical support, encompassing installation, service contracts as well as handling of spare parts and standards.

Embrace efficiency and reliability with SmartCEMS® SynGas.

ANALYTICAL PERFORMANCES

GAS	LoD	Unit
CO	0.01	%vol.
CO ₂	0.01	%vol.
CH ₄	0.01	%vol.
O ₂	0.01	%vol.
H ₂	0.01	%vol.
CxHy	0.01	%vol.



HIGHLIGHTS

- 1 ONLINE MONITORING
- 2 POWERFUL SENSOR CONFIGURATION
- 3 MODULAR AND FLEXIBLE
- 4 COMPACT DESIGN
- 5 FOR RAW AND TREATED SYNGAS
- 6 COST EFFECTIVE

CERTIFICATIONS

O₂, CO: ISO 12039, CTM-030
 CO₂: ISO 12039, OTM-13
 CH₄: ISO 12039, OTM-13
 CxHy: ISO 12039, OTM-13
 NO, NO₂: EPA Method CTM022
 VOC : USEPA Method 21 PID
 Flow, velocity, temperature: USEPA method 2C



SCAN FOR MORE INFO



CALL NOW

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CONTACT DETAILS

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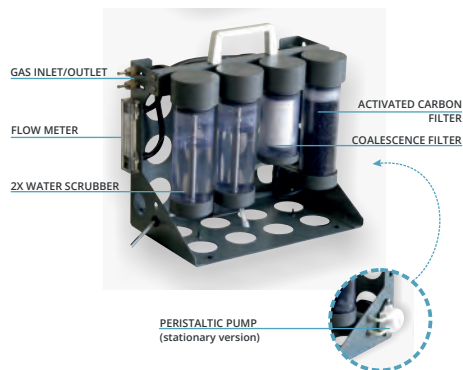
SPECIFICATIONS | Analyser

Dimensions (WxHxD):	240mmx360mmx160mm
Weight:	4kg - 5 kg
Casing's material:	ABS
Protection grade:	IP20
Mounting plate:	596mm(H)x450mm(W) aluminum 1,9 kg
Operation conditions:	T:10°C+50°C, RH:5%+90% (non condensing)
Storing temperature:	0°C - 55°C
Power consumption:	30W max (analyser unit only)
Data logger:	SD flash card max 4GB practically unlimited
Display:	Backlit LCD 20 characters x 4 lines
Gas pump:	Diaphragm max 2l/min std 1.5l/min (90l/h)
Max extr. point pressure:	Atmospheric ±200hPa
Current analogue outputs:	4 outputs 0mA + 20mA or 4mA + 20mA
Digital inputs:	4 outputs 0V + 5V or 0V + 10V
Digital outputs:	2 inputs, TTL levels, floating = high level
Computer com. interface:	B type USB socket

GF4 for raw gas conditioning

Stationary Gas Conditioning Unit

The SmartCEMS® Syngas GF4 Gas conditioning unit is designed for continuous removal of tars and condensate from raw Syngas.



SPECIFICATIONS | Gas conditioning system

Dimensions (WxHxD):	without filters: 110mmx205mmx160mm with filters: 145mmx240mmx160mm
Weight:	1790g (single filter version)
Drying method:	Water condensation by rapid cooling down
Cooler type:	Based on Peltier cooling element w/ fan (12VDC) Constant, about +1°C, output gas dewpoint about +4°C
Cooling temperature:	5 minutes
Ready to operate after:	T:0°C+50°C, RH:5%+90% (non condensing)
Operating conditions:	-20°C - 60°C
Storing temperature:	100l/h (at inlet gas temp 100°C and RH 100%)
Max gas flow efficient drying:	1 (optionally 2) PA body, PC cover, viton sealing
Gas filters:	42mm 26mm 32mm glass fibre 2µm
Filter insert:	Std: via maMoS power supply (through 3-wire power cable)
Power supply:	Standalone version via external supply module: 85V + 264V AC/24V DC
Condensate removal:	With built-in peristaltic pump
Peristaltic pump capacity:	38ml/min
Power consumption:	30W

MADE TO MEASURE

ENVIRONMENTAL MONITORING AND PROCESS AUTOMATION

Emissions and Process



Industrial and Surface Water



Indoor and Ambient Air



Gas Detection



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