AQUA GAS

SmartCEMS EMISSIONS

ONLINE GAS MONITORING SYSTEM

SO_2 | NO | NO_2 | NOx | CO | CO_2 | VOC | O_2

CEMS and Process Multigas Analyser

Complies with international standards: EN14181, WA CEMS code, EPAs, NGER
Available in IECEx for installation in Zone 1 explosive gas atmosphere

DESCRIPTION

The SmartCEMS® is a high-quality stationary monitoring system designed for accurate measurement of up to 8 gases, along with stack gas temperature, ambient and differential pressures.

Ideal for emissions monitoring and GTC process control at combustion plants, such as boilers and burners, waste incinerators, engine exhausts, SmartCEMS® offers a cost-effective alternative to complex Continuous Emissions Monitoring Systems.

Engineered for optimal performance and price efficiency, this compact yet powerful analyser provides plant operators with precise, reliable, and application-specific features to ensure operational excellence.

Available for permanent installation or rental, AquaGas ensures full support, from setup to maintenance.

ANALYTICAL PERFORMANCES

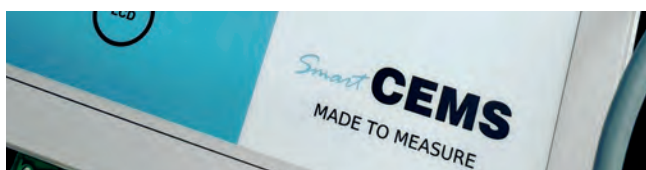| GAS	LoD	Unit
NO	0-2,000	ppvm
SO_2	0-5,000	ppvm
NO_2	0-500	ppvm
CO	0-2,000	ppvm
CO_2	0-25	%
O_2	0-25	%
VOC (NMHC)	0-100	ppvm
CxHy (CH_4)	0-100	ppvm
Stack gas temp	-50-1000	°C
Diff Pressure	-10 to +40	hPa
Gas velocity	1 to 50	m/s

HIGHLIGHTS

1. ONLINE MONITORING
2. POWERFUL SENSOR CONFIGURATION
3. MODULAR AND FLEXIBLE
4. COMPACT DESIGN
5. FOR RAW AND TREATED GAS
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

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 - 55ªC
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

SmartCEMS Multiplexer

Stationary Gas Conditioning Unit

SmartCEMS multiplexer for sequential monitoring of up to 16 sources with user configurable automated sampling sequences.

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)
Cooling temperature :	Constant, about +1°C, output gas dewpoint about +4°C
	5 minutes
Ready to operate after:	T:0°C+50°C, RH:5%+90% (non condensing)
Operating conditions:	-20°C - 60ªC
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
Power supply:	3-wire power cable)
	Standalone version via external suppy 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