

# SmartCEMS GH2 ONLINE GAS MONITORING SYSTEM

H, | O,

Online analyser for Hydrogen and Hydrocarbon gas streams

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

## DESCRIPTION

The SmartCEMS® GH2 is a highly reliable stationary process analyser for green hydrogen gas streams primary constituents (H2 and O2).

The SmartCEMS® GH2 is designed for online monitoring of H2 and O2 (other gases available on demand) in GH2 and Hydrocarbon Stream and suits a large field of applications such as upstream or downstream of the electrolyser, at mixing stations or injection points, along the natural gas pipeline and at the end user just upstream of burners plants and associated gas treatment centres.

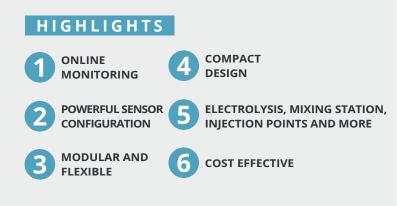
Available for permanent installation or rental, AquaGas ensures full support, from setup to maintenance.

#### ANALYTICAL PERFORMANCES

TARGET GAS	RANGE   RESOLUTION	ACCURACY	TIME T(90)
H <sub>2</sub> Hydrogen	2000ppm 1ppm	±10ppm abs. or 5%rel.	50s
H <sub>2</sub> Hydrogen	20000ppm 1ppm	±10ppm abs. or 5%rel.	50s
H <sub>2</sub> Hydrogen	10%   0.1%	±0.5%abs. or 5%rel	50s
H <sub>2</sub> Hydrogen	25%   0.1%	±0.5%abs. or 5%rel	50s
H <sub>2</sub> Hydrogen	50%   0.1%	±0.5%abs. or 5%rel	50s
H <sub>2</sub> Hydrogen	100%   0.1%	±0.5%abs. or 5%rel	50s
O <sub>2</sub> Oxygen	20.95%   0.1%	±0.1%abs. or 5%rel	45s
O <sub>2</sub> Oxygen	100.00%   0.1%	±0.1%abs. or 5%rel	45s
O <sub>2</sub> Oxygen	25.00%   0.1%	±0.1%abs. or 5%rel	45s
O <sub>2</sub> Oxygen	100.00%   0.1%	±0.1%abs. or 5%rel	45s







## CERTIFICATIONS

02, 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

# CALL NOW



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Elanora, QLD Australia



## SPECIFICATIONS | Analyser

Dimensions (WxHxD):
Weight:
Casing's material:
Protection grade:
Mounting plate :
Operation conditions:
Storing temperature:
Power consumption:
Data logger:
Display:
Gas pump:
Max extr. point pressure:
Current analogue outputs:
Digital inputs:
Digital outputs:
Computer com. interface:

240mmx360mmx160mm 4kg - 5 kg ABS IP20 596mm(H)x450mm(W) | aluminum | 1,9 kg T:10°C+50°C, RH:5%+90% (non condensing) 0°C - 55°C 30W max (analyser unit only) SD flash card | max 4GB | practically unlimited Backlit LCD | 20 characters x 4 lines Diaphragm | max 21/min | std 1.51/min (901/h)

Atmospheric ±200hPa 4 outputs 0mA + 20mA or 4mA + 20mA 4 outputs 0V + 5V or 0V + 10V

2 inputs, TTL levels, floating = high level 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

Weight: Drying method: Cooler type:

Cooling temperature

Ready to operate after: Operating conditions: Storing temperature: Max gas flow efficient drying: Gas filters: Filter insert: Power cupple

Condensate removal Peristaltic pump capacity Power consumption

without filters: 110mmx205mmx160mm with filters: 145mmx240mmx160mm 1790g (single filter version) Water condensation by rapid cooling down Based on Peltier cooling element w/ fan (12VDC) Constant, about +1°C, output gas dewpoint about +4°C 5 minutes T:0°C+50°C, RH:5%+90% (non condensing) -20°C - 60ªC 100l/h (at inlet gas temp 100°C and RH 100%) 1 (optionally 2) | PA body, PC cover, viton sealing 42mm | 26mm | 32mm | glass fibre | 2µm Std: via maMoS power supply (through 3-wire power cable) Standalone version via external suppy module: 85V + 264V AC/24V DC With built-in peristaltic pump

## MADE TO MEASURE

#### ENVIRONMENTAL MONITORING AND PROCESS AUTOMATION

**Emissions and Process** 

**Industrial and Surface Water** 



Indoor and Ambient Air



Gas Detection



## CALL NOW



1300 850 862 +61 (0)755 768 295

38ml/min 30W

> AQUA GAS

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