



Real Time H₂S and CO₂ Gas Analyser

SMS modular concept solutions are fully automated and built portable with ultra-compact features, making it easy to transport for multiple field usage.

System Overview

Our solutions offer a multi-component gas analysis at unparalleled speed that measures methane, ethane, propane, iso-butane, iso-pentane and a combined measurement for (n-butane, n-pentane and n-hexane), as well as percent level H₂S and CO₂ gas.



Constant, Accurate Data under Safer Environment

Under dangerous atmospheres, manual collection of gas or liquid samples can lead to complicated scenarios that will impact personnel health and safety. The process is time-consuming as the samples will need to be sent to the lab before obtaining the

concentration analysis data. With our expertise, the operators and well test engineers can gain data accurately and remotely in a much safer environment.

Benefits

Improve safety

- Fully automated modular concept solutions
- Zero emission sampling reduced environmental risk and personnel exposure to potentially harmful samples

Reliable and Repeatable Data

- Provide immediate, real-time information
- No interference from other components of sample
- Higher resolutions ensure accurate measurement
- Seamlessly integrate with your current monitoring system

Remote Monitoring

- Save on manpower and offshore bedspace
- Increase efficiency

Intelligent Alarming

- Fully flexible alarm definition and transmit options

Portable, ultra-compact features

- Easy to transport for multiple field usage

Data Integration



SMS cloud-hosted visualisation suite built with unique, compelling and critical features for clients to access data from multiple sensors via an online interactive reporting system from anywhere in the world. Real-time data can now be analysed and interpreted quickly and easily, using 3D imagery of sensor locations and a graphical interface that you can control and direct with ease for maximum clarity.

Click to watch [SMS Smart Reporting Demo](#) or [SMS Zero Manpower Solutions Video](#).

Installation and Maintenance

Our highly trained field technicians and engineers will ensure the system installed and operates successfully, meeting the regulatory standards.

Aside from supplying the products, we can support your needs in optimising the life and reliability of your analyser under tailored maintenance program and troubleshooting. SMS provides both on site and remote support for clients globally.

Training and Rental Package

All SMS products are available for training and rental package upon request.



Sense



Understand



Perform

Real Time H₂S Gas Analyser



Features

- Data logging
- Stream Switching
- Fast response times from 1 to 10 seconds
- No carrier gas or instrument air required
- First principal measurement
- Physical properties such as Heating Value (BTU)
- Linear response throughout the measurement ranges
- Sample cell pressure and temperature compensated
- Remote & completely unattended operation
- Additional measurement recipes available
- Multi-component hydrocarbon gas analysis plus percent level H₂S and CO₂
- Wide range of additional components/recipes to choose from
- Limited maintenance required
- Low total cost of ownership
- Advanced software provides full configurability

Application

- Natural Gas measurements including processing, transmission, storage and distribution
- Power Generation (turbine, internal combustion engine, fuel cell)
- Truck / Ship / Railcar / Unloading Terminals
- Portable / Temporary analysis
- Flare Gas Monitoring
- Fuel Gas Monitoring
- LNG / LPG / BOG
- Process Industries
- Pipeline Blending
- Gas Plant Inlet
- Acid Gas



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Specifications



Hydrocarbon Analyzer shown with a Sample Conditioning System for Saturated & Dirty Gas



Ex Analyzer

Measurement Ranges	Methane (CH ₄)	:2000ppm – 100%
	Ethane (C ₂ H ₆)	:2000ppm – 25%
	Propane (C ₃ H ₈)	:2000ppm – 25%
	i-Butane (C ₄ H ₁₀)	:1000ppm – 10%
	n-Butane (C ₄ H ₁₀) + n-Pentane (C ₅ H ₁₂)	:1000ppm – 10%
	i-Pentane (C ₅ H ₁₂)	:1000ppm – 10%
	Carbon Dioxide (CO ₂)	:1% – 100%
	Hydrogen Sulfide (H ₂ S)	:1% – 100%
Accuracy	Methane (0 – 80%)	: ±0.5%
	Methane (80-100%)	: ± 0.2%
	Other Hydrocarbons	: ± 0.2%
	H ₂ S	: ± 0.2% or 1% of reading (whichever is greater)
	CO ₂	: ± 0.2%
Repeatability	Less than 0.1%	
Zero Drift	Less than 0.2% (absolute) per week (zero on air or N ₂)	
Calibration	Permanent Factory Span Calibration (Note: User component correction factors can be written to system)	
	Zero gas recommended upon start-up and every 1-2 months	
Update Time	1 second – 10 seconds typical, software configurable (Longer averaging time improves precision)	
Sampling	Technique	Flow through cell (100ml internal volume)
	Flow Rate	0.1 – 2 LPM (typical)
	Pressure	0 – 2 psig (standard)
	Sample Temp	0 – 50°C note cell is maintained at 60°C
	Connections	1/4" Swagelok
Power	24 VDC (Optional 120/240 VAC, 75 peak 35 watts nominal)	
Display	128 x 64 Graphic Display; Menu is scrolled by internal button or external magnet.	
Outputs	128 x 64 Back-lit graphical display with scrolling menu	
	Dual isolated 4-20 ma loop powered analog outputs	
	4 additional 5 amp SPDT alarm relays	
	4 solid state solenoid drivers for stream switching	
	4 dry contact inputs	
Internal archive storage via HMI "I.C.E." Platform		
Modbus serial RS-232 and RS-485		
Modbus TCP/IP via ethernet		
Hazardous Area Certification	CSAus Certified for Class I Division 1 and 2, Groups B,C,D ATEX Ex nA nC nL IIC T4 Gc	
Dimensions	61.0 x 45.7 x 30.5 cm	65kg (approx)
	24" x 16" x 12"	135lbs (approx)