23 Series Total Hydrocarbon Gas Analyser



Analysis of your Total Hydrocarbons

Features:

- 5.7" QVGA Touch Screen Display
- Easy to Use interface provides user access to all features
- Digitally monitoring flow control on all gas lines
- Visual Alarms & Relay contacts provided
- Internal Zero/Span/Sample solenoids provided
- Autocalibration & Validation check feature
- o Live Data Logger via RS232
- 3 Ranges (Autoranging)
 0.00 to-20,000ppm
- 2 off Adjustable 4-20mA output (isolated - Passive)

Target Market:

- o Air Separation Units
- o Air Liquification Plants
- o Gas Blending equipment
- Industrial Gas Production Units
- Gas Cylinder Filling Sites
- o Compressor Manufacturers
- o Chemical Plants
- o Refineries
- Adhesive Manufacturing Emissions
- Combustion Engine Efficiency
- o Ambient Air Monitoring
- Landfill and biogas applications
- Calibration/ Quality Control Laboratories





About the 23 Series

The new Total Hydrocarbon Gas Analyser from AGC Instruments Ltd is the latest in digital and modern technology but based on the well-known and approved analytical performance of its previous generation. Utilising the finest tools available, the ease with which customers are able to achieve the best results has been made easier. This new and easy to use THC Analyser has an interactive touch screen display where all controls and results easily brought to the customers. Literally at the touch of a finger!!!!

Designed to continuously measure and monitor concentrations of Hydrocarbons in a gas stream. It is also available to measure CO & CO₂. Our Instrument will provide accuracy with long term performance for applications ranging from gas producers to laboratory uses. For ppb applications, the internal cabinet is heated to provide a stable ambient temperature to offset any working temperatures.

Principle of Operation:

Based on the principle of the Flame Ionisation Detector (FID) where ionised carbon atoms are produced when burned in a Hydrogen flame. Following calibration, the results are displayed as ppm or g/m^3 .

What does the 23 Series offer:

Continuous Hydrocarbon monitoring

Selective to Hydrocarbons only

Long Term Reliability and Stability even in low ppm ranges

Approved low detection limit

Versatile Fuel Mixtures

Methaniser option to measure CO and CO₂

Heated FID available

Higher temperature version available

Gas Chromatography since 1965

Flow Contol:

All gas flows in the instrument are controlled electronically by our robust Mass Flow Controller is used to maintain a constant flow to the detector. All the flows are displayed on the touch screen LCD display. In the event of a failure, an event alarm will be shown on the LED located on the front panel independently of the touch display. Should a gas leak occur, our system will automatically shut off the Sample and Fuel lines to the FID, and an alarm will be activated.

Specifications:	
Ranges of Detection:	0.00 - 0-20,000ppm Higher ranges on application
Resolution:	< 0.01ppm
Linearity:	0.01 – 20,000ppm
Zero Drift:	<30ppb
Minimum Detectible Level:	<30ppb
Units:	ppm , g/m ³
Response Time:	< 30 seconds
Warm Up Time:	1 Hour Typical
Gas Requirements:	
Fuel Gas:	Zero Grade H ₂ @ 30ml/min
Fuel Mix:	40/60% mixture @ 70ml/min
Zero Air:	300 ml/min
Sample Gas:	2 to 6 bar [200kPa to 800kPa] (Max inlet pressure 8 bar / 800kPa)
Flow:	Digitally monitored flow control on all gas lines
Flame Ignition:	Local or Remote with reliable stable flame ignition circuit. The Flame Out Alarm once activated will automatically shut off the Fuel & Sample flow.
Diagnostics:	20 Debug fault codes
	To quickly identify and correct faults
Interface:	5.7" LCD Display with CCFL backlight
	QVGA 320 x 240 pixel resolution
	Backlight/Contrast adjustable
Ambient Temperature:	15°C to 35 °C
4-20mA Outputs:	2 off
	Measurement available as current loop.
	3kV isolation, Reverse voltage protected, Over voltage protection (max 65V),
	Passive - External PSU required (9-36V)
Alarms Outputs:	System alarm relays provided with voltage free relay contacts
	High alarm, Low alarm, Fault alarm, Sample Gas On, Zero Gas On, Span Gas On, Flame Out
Solenoids:	Internal Zero/Span/Sample solenoids provided for automatic operation as programmed
Auto Signal Zero:	Zero Drift can be removed by a periodic automatic Zero solenoid function
Auto Calibration Check:	Can be used to validate the current measurement against a known calibration gas
Auto Range:	System will automatically select the most suitable range for the input signal
Data Logger:	Data can be logged live via RS 232 to a remote station. 10,000 measurements can be stored internally for retrieval at a later date.
Power:	110/220/240V, 50/60Hz
Configurations:	19" Rack or Bench Top or Wall Mounted
Dimensions:	19" (W) X 4U (H) X 450mm (D) [483mm x 183mm x 450mm]

Accessory available:

An Ultra High Pure Zero Air Generator which provides a continuous supply of UHP Zero Air to the Model 23 Series Total Hydrocarbon Gas Analyser. This unit will generate a quality Zero Air from compressed air which is free from all oil traces, particulates and water. This unit is connected in series to the THC Gas Analyser.