

Analysis of your Total Hydrocarbons



About the 23 Series

The new Total Hydrocarbon Gas Analyser from AGC Instruments 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 ppb.

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 Semiconductor Industry
- Methaniser option to measure CO and CO₂
- Heated version available, to analyse Gas Streams where Sample Temperature needs to be maintained at the Operating Temperature

Features:

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

Typical Applications:

- THC in H₂, O₂, Air, Ar, N₂ and CO₂
- Air Separation Units
- Air Liquefaction Plants
- Gas Blending Equipment
- Industrial Gas Production Units
- Gas Cylinder Filling Sites
- Compressor Manufacturers
- Chemical Plants
- Refineries
- Adhesive Manufacturing Emissions
- Combustion Engine Efficiency
- Ambient Air Monitoring
- Landfill and Biogas Applications
- Calibration/Quality Control Laboratories



Series 2400-W

Series 2300	% Analyser
Series 2400	ppm Analyser
Series 2500	ppm Analyser with Methaniser for CO/CO ₂ (Single Reading)

Flow Control

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.

Specification	
Ranges of Detection	0.00 - 20,000ppm (Higher ranges on application)
Resolution	< 0.01ppm
Linearity	0.01 - 20,000ppm
Zero Drift	< 30ppb
Minimum Detectable Level	< 30ppb
Units	ppb, ppm, %
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	300ml/min
Sample Gas	0.5 bar [200kPa]
Flow	Digitally monitored flow on all gas lines
Flame Ignition	Stable flame ignition circuit. The Flame Out Alarm once activated will automatically Shut off the fuel and 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 30°C
4-20mA Outputs	2 off Measurement available at current loop 3kV isolation, Reverse voltage protected , Over voltage protection (max 65V), Passive - External PSU required (9-36V)
Alarm 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 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 via RS232 to a remote station 10,000 measurements can be stored internally for retrieval at a later date
Power	115/230 VAC, 50/60 Hz
Configurations	19" Rack, Bench Top or Wall Mounted
Dimensions	19" (W) X 4U (H) X 450mm (D) [483mm x 183mm x 450mm]

Accessories 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.

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