Product Specifications

Direct Methane & Non-Methane Analyzer, Model 55C

Utilizing Flame Ionization for detection of CH_4 & NMHC

Key Features

- Complete separation of methane from all C_2 compounds
- Measurement from C1 through C12 (minimum)
- Independently controlled column oven temperature
- Automatic calibration and span check
- Flame out sensor and automatic re-ignition

The Thermo Scientific Model 55C Methane, Non-Methane Hydrocarbon Analyzer is designed to provide a direct measurement of both methane and non-methane hydrocarbons (NMHCs). Unlike instruments that use scrubbers or catalysts to measure only methane and total hydrocarbons, the Model 55C back-flushed gas chromatography system allows reliable measurements of NMHCs at sub-ppm concentrations, even in the presence of much higher concentrations of methane.

To start an analysis cycle, a known volume of air is collected in the sample loop. The eight port valve, which is located in the detector oven, is then rotated to inject the sample into a flowing stream of carrier gas. The sample is carried to the separation column located in a separate oven kept at 650°C.

As the sample is carried through the column, various hydrocarbons move at different velocities, based on their chemical and physical properties. Due to the low molecular weight and high volatility, methane is carried back to the detector oven and measured by the FED. The valve is then returned to the original position. This action reverses the direction of gas flow through the column and "backflushes" the non-methane hydrocarbons to the FID for measurement.

Menu-driven software makes it simple to establish operating parameters and to control calibration and measurements. The Model 55C also provides analog status and control lines for use with an external data system and it may be configured for continuous, fully automated, stand-alone operation.

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To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. We offer comprehensive, flexible support solutions for all phases of the product life cycle. Through predictable, fixed-cost pricing, our services help protect the return on investment (ROI) and total cost of ownership of your Thermo Scientific air quality products.

Product Specifications

Lower Detectable Limit	20 ppb methane
	50 ppb NMHC as propane
Preset Ranges	0-20, 200 and 2,000ppm*
Accuracy	2% of span
Precision	2% of measured value
Span Drift (24 hour)	3% of current range
Analysis Time	70 seconds or less
Sample Flow Rate	500ml per minute minimum
Oven Temperature	150- 200°C detector oven
	65°C column oven
Power Requirements	90-110 VAC, 105-125 VAC
	210-250 VAC, 500 Watts
Dimensions	16.75" 9W) x 8.62" (H) x 23" (D)
Weight	50lbs
Output	Methane, NMHC, Total hydrocarbon and FID signal,
	User-selectable concentration ranges 0-10V, 5V, 1V, or 0.1 (standard)
	4-20mA (optional), RS-485 (Optional)

**custom ranges available*

Ordering Information

Model 55C CH_4-NMHC Analyzer

Choose from the following configurations/options to customize your own Model 55C

Voltage Options:
A = 120 Vac 60 Hz (standard)
B = 220 Vac 50 Hz

Concentration Ranges:
1 = Low Range (5-50-500 Methane \ 5-50-500 Non-Methane)
2 = Mid Range (10-100-1000 Methane \ 10-100-1000 Non-Methane)
3 = Standard Range (20-200-2000 Methane \ 20-200-2000 Non-Methane)
4 = Stack Range (50-500-5000 Methane \ 5-500-5000 Non-Methane)
*5 = GM AVL (5-15-75-EXT Methane \ 5-15-75-EXT Non-Methane)
*6 = Chrysler DC-1 (10-25-50-EXT Methane \ 30-75-300-EXT Non-Methane)
*7 = GM Direct (10-50-250-EXT Methane \ 24-120-600-EXT Non-Methane)
*8 = GM9 (10-50-100-EXT Methane \ 10-50-100-EXT Non-Methane
*9 = GM10 AVL (2-5-10-EXT Methane \ 2-5-10-EXT Non Methane)

Fuel Type:
H = 100% Hydrogen (standard)
M = Mixed Fuel (40/60 Hydrogen/Helium)

Optional I/O:
A = None (standard)
C = 0-20, 4-20mA current output

External Communication
B = Remote I/O PC Board w/ RS-232 Interface
D = Remote I/O PC Board w/ RS-485 Interface

Additional Options Include:
Ears and Handles
Ear, Handles & Rack Mounts
Ears, Handles, Rack Mounts & Rear Extender

Your order code is: 55C _ _ _ _ _ _

Lit_55CAQI_1008

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