

Portable Natural Gas Chromatograph

Model 292B Portable Natural Gas Chromatograph

Easy Operation

The production and custody transfer of natural gas requires accurate measurement of the composition of the gas. Many contractual requirements define the desired composition, heating value and relative density of the gas being sold or transported. Portable gas analysis of the critical components in natural gas ensures reliable results when installation of stationary analyzers is impractical or costly.

The AMETEK Model 292B natural gas chromatograph is designed as a truly 'portable' analyzer. An integrated sample inlet manifold allows for single connections of sample and drive (carrier) gases, allowing for flexible installation either as a stand-alone analyzer, or integrated onto a mobile platform such as a truck or other vehicle.

Analysis begins at a single touch of a button. Sample transport, signal integration and system diagnostics are handled within the unit to ensure accurate, reliable and repeatable analysis.

Sample results, including 'live' chromatograms may be viewed via the front panel LCD display, allowing for rapid analysis of results. Raw data and analysis reports may be retrieved via USB port, and USB printer support allows for direct printout of stored reports and other stored data.



Model 292B full color LCD display

Proven Performance

AMETEK Chandler Engineering has been manufacturing laboratory and process gas chromatographs for over 30 years. Our proprietary manufacturing process ensures that the Model 292B will maintain superior repeatability over its entire service life. Our experience in GC valve design assures reliable and trouble-free operation.

The advanced software platform of the Model 292B will accurately calculate heating value, relative density, and compressibility using industry standard calculation methods. Integrated optimization functions allow for extremely precise monitoring and control of the analytical system of the Model 292B, resulting in exceptional sensitivity and peak performance.



The Model 292B was designed around field-proven chromatographic techniques defined by GPA, ASTM, ISO and AGA.

Features and Benefits

- ▶ On-board storage capability of up to 1,000 chromatograms and test results
- ▶ Fully integrated sample handling and distribution system
- ▶ Five inch color multi-menu LCD display including real-time chromatogram view
- ▶ Repeatability better than ± 0.5 BTU/1000 BTU
- ▶ Compliance with industry standards (GPA, ASTM, ISO, AGA)
- ▶ Built-in data protection and advanced diagnostic capability
- ▶ USB flash drive support for data transfer/retrieval
- ▶ USB printer connectivity
- ▶ Field-rugged, water-resistant, easy-to-carry package
- ▶ No routine maintenance required
- ▶ Simple to operate

Applications

- ▶ Custody transfer/natural gas pipeline monitoring
- ▶ Production/well head analysis
- ▶ Verification/confirmation of laboratory analysis

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Specifications

Performance

Range: 0-2,000 BTU/scf and 0-74,500 kJ/m³
Repeatability: ±0.05% or ±0.5 BTU/1000 BTU
Standards: ISO 6568, 6569, 6976
ASTM D3588, D1945
GPA 2261, 2172, 2145
AGA-8

Environmental

Operating Temp: -4° to 130°F (-20-55°C), non-condensing

Rating: European EMC approved pending

Power Requirements

115 or 230 VAC ± 10%, 50/60 Hz
250 VA startup, 40 VA operating
Can be operated with inverter from 12 VDC

Sample Gas

Analyzes liquid-free natural gas that contains nitrogen, methane, carbon dioxide, ethane, propane, I-butane, N-butane, I-pentane, neo-pentane, N-pentane, C₆ and heavier components.

Max Inlet Pressure: 3,500 psig (24,132 kPa)

Min Inlet Pressure: 7-10 psig (48-69 kPa).

Connection: 1/8" stainless steel tube

Carrier Gas

Zero-grade helium (99.995% pure)

Pressure: 150 psig (1135 kPa)

Connection: 1/8" SS tube (metric adapter kit available)

Supply Gas (GC valve)

Nitrogen, helium, or instrument air

Pressure: 80 psig (552 kPa)

Connection: 1/4" flared tubing

Warm Up Time

40 minutes

Dimensions (HxWxD)

13" x 19.5" x 12"

Weight

37 lbs.

Communications

Qty. 2, USB Type A

Ethernet RJ45 (Future)

Portable Cylinder Cart Option

Part Number: 100-2629

Includes cart and two tank regulators. The cart is capable of holding two cylinders, maximum cylinder size 7 1/2 in. dia. x 32 in. H and comes with two regulators (0-3000 psig inlet / 0-200 psig outlet complete with 2.5 in. gauges).

Recommended Calibration Gas

Certified natural gas standard in 14-liter bottle (240 psig) consisting of 11 components: approximately 90% methane (1050 BTU value). Special handling for hazardous material is required for shipment.



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