

Envent Model 132S

BTU Gas Chromatograph

Compliant with EPA Renewable Fuel Standards & ASTM D7164-21

The Model 132S Natural Gas Chromatograph (GC) is a simple approach to energy measurement, created and designed for the custody transfer metering of Natural Gas as well as many other BTU applications. Envent provides a Natural Gas platform that is efficiently manufactured to ensure industry leading delivery, while providing a GC that allows for ease of serviceability.

Features

- Standard: 4-minute C6+ repeatability +/- .25 BTU / 1,000 SCF
- Optional: 2-minute Fast BTU C6+ repeatability +/- .5 BTU / 1,000 SCF
- Optional: 5-minute BTU C9+ repeatability +/- .5 BTU / 1,000 SCF (heated sample system enclosure required)
- High-performance GC columns packed in our Envent GC Lab
- Reduced carrier usage due to efficient column design

Field-Serviceability

- Easy access Electronics Enclosure with single board technology
- Easy access GC Detector/Column Oven for easy GC valve diaphragm replacement and column change
- Typical downtime for diaphragm and column change: 30 minutes
- No modules to maintain or un-planned downtime due to non-serviceability and high cost of competitor's module technology
- Returns ownership to the measurement technician rather than the GC manufacturer

Standard Configuration

- One custody-transfer stream and one auto-calibration stream (up to 3 additional custody streams)
- Atmospheric reference valve for repeatable, precise sample injections
- Sample conditioning instrumentation mounted on a common plate

Electronics

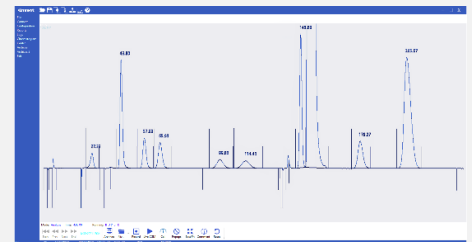
- Non-incendive electronic circuit design approved for Class I Division 2 electrical areas
- Eliminates the need for explosion-proof enclosures or purge-air
- Includes all CPU, Memory, and I/O functions on a single board that operates together with the Envent Gas Chromatograph software
- Low-cost, simplified electronic troubleshooting approach

Software

- Archived custody stream chromatogram/chart storage
- Auto-storage of most recent calibration chromatogram/chart
- 18 months of archived analysis reports
- 6 months of archived calibration reports



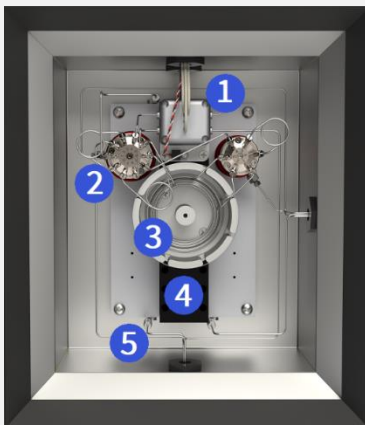
132S BTU Configuration



Envent Gas Chromatograph Software
(GCS)



Easily Accessible GC Oven



1. Thermal Conductivity Detector
2. GC Valve
3. Column Dish
4. GC Oven Heater
5. Sample Pre-Heat Coils

Measurement Ranges

Methane	65 to 100 mol%
Ethane	0 to 20 mol%
Propane	0 to 10 mol%
N-Butane	0 to 5 mol%
Iso-Butane	0 to 5 mol%
N-Pentane	0 to 1 mol%
Iso-Pentane	0 to 1 mol%
Neo-Pentane	0 to 1 mol%
Hexane+	0 to 1 mol%
Nitrogen	0 to 20 mol%
Carbon Dioxide	0 to 20 mol%

Specifications

Environmental Temperature	-20° to 60°C (-4° to 140°F) Quoted per application
Dimensions	Standard Configuration: 42" H x 24" W x 9" D (122cm H x 61cm W x 23 cm D)
Mounting	Wall mount or floor mount
Enclosure	NEMA 4X
Electrical Classification	Class I, Division 2, Groups B, C, D
Power	120 +/- 10% VAC 50/60 Hz Standard 240 +/- 10% VAC 50/60 Hz Available
Power Consumption	Startup: 100 watts (does not include sample system electronics) Steady State: 60 - 80 watts nominal
Oven	Airless Heat Sink
GC Valves	Six-port and ten-port diaphragm chromatograph valves Thermal Conductivity Detector (TCD) Single or Dual TCD Capabilities (2-min application)
Stream Valves	Double Block and Bleed
Repeatability	C6+ 4-minute Controlled Temperature ±0.25 BTU / 1,000 SCF (±0.025%) at ambient C6+ 2-minute Controlled Temperature ±0.5 BTU / 1,000 SCF (±0.05%) at ambient
Carrier Gas	UHP Helium (99.999%) or UHP Hydrogen (99.999%)
Actuation Gas	Helium, Nitrogen, Instrument Air (GC Valves/Stream Valves Regulated to 65 psig)
Detector	Thermal Conductivity Detector: Single or Dual TCD capabilities Single TCD (4-minute C6+) Dual TCD (2-minute C6+ Fast BTU Option)
Peak Gating	Auto-Slope detection
Streams	Up to 4 Custody streams (plus auto-calibration stream)
Input/Output	Two (2) analog outputs Four (4) dry contact relay outputs Four (4) digital inputs Four (4) solenoid outputs
Communications	SIM 2251 Modbus mapping, User Modbus mapping One (1) RS-232 serial communication port (Modbus capable) Two (2) RS-485 serial communication ports (Modbus capable) One (1) Ethernet communication port RJ-45 (Modbus capable)
Measurement Calculations	Latest GPA 2145, GPA 2172, AGA 8, and ISO 6976 calculations Compliant with EPA Renewable Fuel Standards & ASTM D7164-21

Canadian Office

2721 Hopewell Place NE
Calgary, Alberta, Canada T1Y 7J7
Phone: 403-253-4012
Email: canadasaless@enventengineering.com

USA Office

13219 B Stafford Road
Missouri City, Texas, USA 77489
Phone: 713-568-4421
Email: usasales@enventengineering.com

Mexico Office

Av. Revolución No. 1267,
Floor 19, Office 55
Mexico City, MX
Phone: +52 833 247 8260
Email: mexico@enventengineering.com

International

Phone: 403-253-4012
Email: international@enventengineering.com