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Envent Model 132S

Process Gas Chromatograph

The Model 132S Process Gas Chromatograph (GC) is a simple approach to energy measurement, created and designed for many different applications. Envent provides a Process Gas Chromatograph platform that is efficiently manufactured to ensure industry leading delivery, while providing a GC that allows for ease of serviceability.

Features

- 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: approx. 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

Natural Gas Applications

- Energy Measurement
- Pipeline Monitoring
- Custody Transfer
- Biogas/Landfill
- Power Generation
- Turbine Control

Gas Processing Applications

- Cryogenic gas plant
- NGL/LPG (methanol ethanol)
- LNG
- Fractionation/ Hydrocarbon Purity
- Gas Sweetening
- Methanol in NGL
- Methanol in Natural Gas

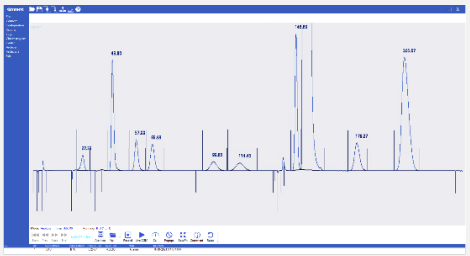
Electronics

- 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 Process Configuration



Envent **G**as **C**hromatograph **S**oftware (GCS)

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Easily Accessible GC Oven

1. Thermal Conductivity Detector (Max 2)
2. GC Valve (Max 6)
3. Column Dish
4. Sample Pre-Heat Coil (Max 4)

Specifications

Environmental Temperature	-20° to 60°C (-4° to 140°F) Quoted per application
Dimensions	Standard Configuration: 72” H x 24” W x 16” D (183cm H x 61cm W x 41cm 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	Start up: 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
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 Advanced TCD allows for low ppm measurement
Peak Gating	Auto-Slope detection
Streams	Up to 4 Custody streams (plus auto-calibration stream)
Input/Output	2 analog outputs 4 dry contact relay outputs 4 digital inputs 4 solenoid outputs
Communications	SIM 2251 Modbus mapping User Modbus mapping 1 RS-232 serial communication ports (Modbus capable) 2 RS-485 serial communication ports (Modbus capable) 1 Ethernet communication port RJ-45 (Modbus capable)
Measurement Calculations	Latest GPA 2145, GPA 2172, AGA 8, and ISO 6976 calculations

Canadian Office
2721 Hopewell Place NE
Calgary, Alberta, Canada T1Y 7J7
Phone: 403-253-4012
Email: canadasales@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

www.enventengineering.com