



Ei2800 GC Monitoring System

Biogas, RNG, and Natural Gas

The Ei2800 GC Monitoring System provides fast and accurate online monitoring for various process gases, delivering calculated values pertaining to the gas composition as well as their concentrations. The Ei2800 system features the widely acclaimed Ei800 Process GC, as well as Sampling Conditioning components in a compact, wall mountable enclosure. The GC's revolutionary TCD detector provides incredibly fast and sensitive analysis, and the modular design allows for custom GC columns that are suitable for a wide range of applications.

Key Features

- Compact EX Certified Process GC
- Power, Communications, and Service Junction Box
- Super fast analysis
 - Less than 60 seconds for complete gas composition analysis
- Up to 4 Columns
 - Customizable to application
- Extreme Sensitivity and Accuracy
 - 500 ppb DL
- Multi-Stream Capacity of a 4 or 8-stream solution
 - Analyses complete within the 15-minute EPA RFS mandate
- Minimal carrier gas consumption of 5 mL/min. during analysis
- Low Power Requirements
- Compact Enclosure (30 x 30 x 12")
 - Cabinet Cooling Fan
 - Cabinet Heater
 - Sample/Calibration Ports
 - Moisture Separator(s)
 - Pressure Gauge(s) and Regulator(s)
- Easy to Maintain
 - Robust design without any tubes or capillaries
 - Replaceable cartridges
- EPA Renewable Fuel Standard (RFS) compliant

Available Measurements

- Major Gases (CH₄, CO₂, CO, O₂, H₂, N₂, He, H₂S)
- Heating Value and Relative Density
- Custody Transfer (C3+, C6+, C9+)
- Common Sulfur Compounds in Gaseous Fuels (14 per ASTM D6228)
- Moisture (H₂O)
- BTEX
- Others Available





Typical Applications

- Biogas (Raw and Process)
- Renewable Natural Gas (RNG)
- Natural Gas
- Synfuels
- Landfills
- Wastewater Treatment Plants
- Dairy, Hog and Chicken Farms
- Natural Gas Pipeline Monitoring
- Process Monitoring
- Others

Options

- Hazardous Area (C1D1 and C1D2)
- Air Conditioner
- Multi-Sampling Point Switching System
- Inert Coating for High H₂S Applications
- Vacuum Eductor or Pump System for Low Pressure Applications
- Heated Exhaust Line for High Moisture Applications

Technical Specifications

Cycle Time	15 to 60 s (typical)
Repeatability of Concentration	< 0.05 % RSD (typical, concentration dependent)
Calorific Value Calculation for Natural Gas	ISO 6976:2016, GPA 2172, ASTM D3588: ± 0.025% repeatability
Operating Temperature	-20 to 55 °C / -4 to 131 °F
Storage Temperature	-20 to 60 °C / -4 to 140 °F
Moisture	5 to 95 %
Dust/Water Protection	IP65 (only valid with receptacle cap /mating connections)
Power Supply	20 to 28 VDC
Power Consumption	20 W nominal, 75 W max
Dimensions	30 × 30 × 12"
Weight	210 lbs. (varies per configuration)
Carrier Gas	He, Ar, N ₂ , or H ₂
Carrier Gas Input Pressure	65 ± 5% psi
Carrier Gas Consumption	15 ml /minute typical
Sampling	Pressurized or atmospheric
Sample Pressure	1 to 30 psi (but < column head pressure)
Sample Streams	4 (option for more)
Detectors	Fore-flush and back-flush micro TCD
Detection Limit	500 ppb to 100% (application dependent)
Communication Ports	2 × MODBUS over RS485 1 × MODBUS over RS232 1 × MODBUS over TCP /LAN Ethernet 2x Digital I /O
Memory Storage	Up to 256 GB

