Description & Principle of Operation

The petrochemical, gas processing, and gas pipeline industry has always needed an accurate and dependable, low maintenance and cost-effective CO₂ analyzer for quality and process control purposes. Analytical Systems International (ASI) has met these requirements with their proven microprocessor. This microprocessor provides continuous on-line analysis based on the specific non-dispersive infrared principle of operation. The process stream is analyzed for CO₂ and is regulated to 10 PSI. Then a precision flow meter regulates the sample flow to approximately 1.5 SCFH. Next, the sample is introduced to the specific infrared detection element that provides an output proportional to the concentration of carbon dioxide. This signal is digitized and analyzed by the advanced microprocessor and related software resulting in a line 4-20 MA output, relay alarms, and RS232 is provided. The LCD display provides the current reading, previous reading, cycle time, any alarm conditions, procedure prompts (i.e., calibration procedure), and failure indicators (local and remote capability). The analyzer can also interact, communicate, and transmit information for other manufacture’s instrumentation. Quality materials are selected for compatibility and are utilized throughout fabrication. Special attention is given to wetted parts that come in contact with the process stream and are selected to be non-reactive.

Microprocessor Accuracy

- Continuous Analysis
- Multiple Stream Analysis
- External Equipment Transmission
- Push Button LCD Prompted Calibration Procedure
- RS-232/485 Communication
- LCD and Remote Fail Safe Alarm
- Historical Events and Date Reports (see below)
LOW MAINTENANCE

Low Maintenance was a primary consideration in the analyzer design. Normally, only the infrared detector is subject to failure and then only after more than 1 year service. Other components normally do not fail including the electronic boards. Safeguards have been built into the printed circuit boards so that virtually anything short of a lightning strike will not harm the advanced design or cause undesirable spikes. Average maintenance costs are almost eliminated. The uncomplicated design results in low maintenance costs, minimum down time, and increased dependability.

MICROPROCESSOR TECHNOLOGY

The microprocessor based technology provides multiple stream analysis, fail safe features, RS-232 communication, noise rejection, automatic zero, 4-20ma output, 4 alarms, push button calibration, historical data and events report, 200 events (see page 1), and transmission of 2 analog and one digital signal from external equipment. (See Fig above)

COST EFFECTIVE OPERATION is achieved with the advanced microprocessor based design and the infrared detection element. Dependability is achieved with fail safe features, greatly reduced components and supply items, along with limited maintenance requirements resulting in a cost effective carbon dioxide analyzer.

ACCESSORY OPTIONS

Liquid Block System
Sampling Systems
Cabinet and Panel
Heater and Thermostat
Alarm Horn & or Light
Custom Sampling Systems
Solar Panels & Battery

Quotation Information:

Analytical Systems International provides design and application engineering assistance for the User’s analyzer requirements. For a quotation, please complete ASI Analyzer Quote Request Form at www.asikeco.com

SERIES 2605C SPECIFICATIONS

Range: ppm up to 100% CO₂
Repeatability: ± 1% of Full Scale
Accuracy: ± 2% of the reading
Power:
18 to 24DC
110 VAC 60 Hz
(220 VAC Optional)
Output:
4-20ma DC IE Max 300 ohms load, Min. Line Resistance 50 ohms.
Power Rating:
225ma per hr/avg,
500ma Peak
Less than 4 Watts
Memory/Computer Interface RS232/485:
32K Battery Backed up RAM Memory Expandable to 1Meg

Input Signal:
4-20ma @ 350 Ohms Max.
Input Impedance:
30 ohms
Electrical Class:
Class I, Div. I & II
Repeatability:
.2 ppm of Standard Applied
Humidity:
0-100% non condensing
Relay Rating:
3 SPDT Relays, 250 VAC at 10 Amps
4 Alarms Available
Operation Temperature:
0°C to 50°C (32°F to 122°F)
Dimensions:
Panel: 25"W x 20"H x 7"D
Cabinet & Panel: 24"W x 36"H x 10"D
Weight:
Panel 17 kg (35 Lbs)
Cabinet & Panel 27kg (60 Lbs)

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