

CONTINUOUS H₂S TREND ANALYZER

Electrochemical Method

SERIES 2605H



Fig. 1

MICROPROCESSOR ACCURACY

- Continuous Analysis
- Push Button LCD Calibration
- RS-232/485 Communication
- Historical Events and Date Reports (see Fig.1.1 below)
- Automatic Zero
- 4-20 MA Output
- Four Alarm Contacts
- Noise Rejection
- Auto Temperature Compensation

COST EFFECTIVE OPERATION

- H₂S Trend Analyzer
- Explosion Proof & General Purpose
- Fractional Cost of Other Analyzers
- Uncomplicated, Limited Mechanical Parts
- No Tapes, Solutions, Optics, Tape Deck

Description & Principle of Operation

The pipeline geothermal, paper mill, municipal sewage, drilling, & personnel protection industries has for many years needed an accurate, dependable, efficient, and cost effective trend H₂S analyzer for quality and process control purposes. Now, Analytical Systems Intl. has met these requirements with a proven microprocessor based technology which provides continuous on line analysis based on the electrochemical principal of operation. The gas being analyzed for H₂S is regulated to 10 PSI, then a flow meter regulates the flow to aprox. 1 SCFH. Next, the sample is introduced to the electrochemical detection element which provides an output proportional to the concentration of H₂S. The signal is then digitized and analyzed by the advanced microprocessor and related software. The LCD display provides the current reading, previous reading, cycling time, any alarm condition, procedure prompts (such as 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 their 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.

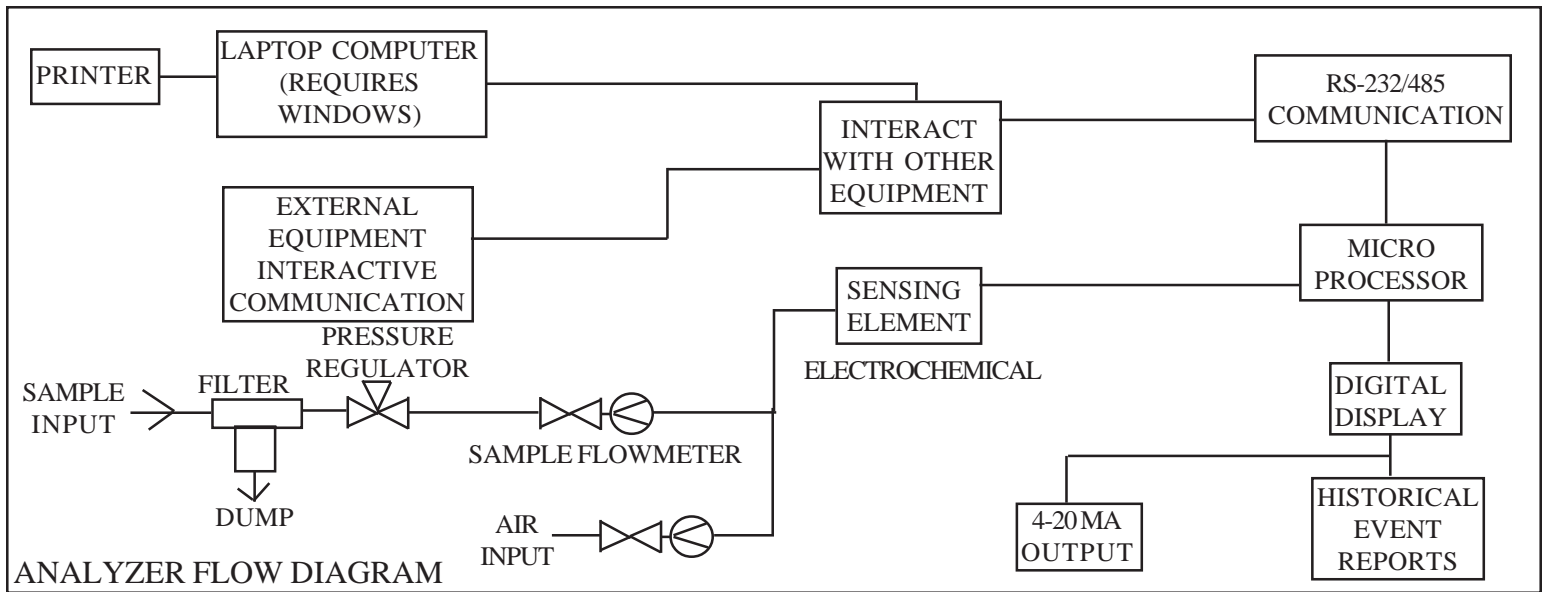
Date	Time	Description	Value	
00/00/00	00:00:00	Oper. Sample Abort		
00/00/00	00:00:00	Events Report		
00/00/00	00:00:00	Alarm 3 Activated	0.1	PPM
00/00/00	00:00:00	Alarm 2 Activated	0.1	PPM
00/00/00	00:00:00	Alarm 1 Activated	0.1	PPM
00/00/00	00:00:00	Unit Power Up		
00/00/00	00:00:00	Unit Power Up		
00/00/00	00:00:00	Unit Power Up		
00/00/00	00:00:00	Alarm 2 Activated	13.7	PPM
00/00/00	00:00:00	Alarm 1 Activated	13.7	PPM
00/00/00	00:00:00	Using Def. Sens Cal		
00/00/00	00:00:00	Calibrate 4-20mA		
00/00/00	00:00:00	Alarm 1 Cleared	1.8	PPM
00/00/00	00:00:00	Alarm 2 Cleared	3.9	PPM
00/00/00	00:00:00	Sensor Low Gain		

Fig. 1.1



Analytical Systems Int'l/KECO R&D

(281) 516-3950 * FAX (281) 351-8925 * www.ASIWebPage.com * CustomerService@ASIWebPage.com
Sales@ASIWebPage.com



Sample Flow Diagram (Fig. 2)

MICROPROCESSOR BASED 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 Fig 1.1), and transmission of 2 analog and one digital signal from external equipment. (See Fig. 2)

COST EFFECTIVE OPERATION is achieved with the advanced microprocessor based design and the electrochemical 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 H₂S analyzer.

ORDERING INFORMATION Analytical Systems Int'l. provides design and applications engineering assistance for the user's analyzer requirements. For a quotation please provide :

1. Range requirements
2. Stream composition or Atmospheric
3. Analyzer installation conditions
4. Explosion proof or Portable
5. Utilities available

OPTIONS

1. Battery backed up RAM memory
2. Added alarm relays
3. Digital Input
4. Analog Input (4-20MA, 0-5VDC)
5. Cabinet and panel
6. Heater and thermostat
7. Solar Panels

SIMPLICITY was a primary consideration in the analyzer design. Normally, only the electrochemical detector is subject to failure and then only after more than 3 years service. Other components normally do not fail including the electronic boards. Safeguards have been built into the printed circuit boards such that virtually anything short of a lightning strike will not harm the advanced design or cause undesirable spikes. No tapes optics, solutions, tape deck or extensive mechanical designs. The uncomplicated design results in reduced maintenance costs, minimum down time, and increased dependability.

SPECIFICATIONS

Range : Customer Specified PPM & up to 1000 PPM H₂S

Power: 110/220VAC
50/60 Hz & 16 or 24VDC

Output: 4-20MA DC.
IE Max 300 ohms load,
Min.Line Resistance 50
ohms.

Power Consumption: 225
MA Per
Hr. Avg.
500 MA Peak

Memory/Interface:
32K battery backed-up
RAM memory expandable
to 1 meg.

Relay Rating:
3 SPDT relays, 250
VAC at 10AMPS.
4 Alarms available
2 Standard

Warranty:
1 year Limited

Input Signal:
4-20 MA, 1-5
VDC, digital

Input Impedance:
30 ohms.

Electrical Class:
Class I, Group D, Div.
I

Repeatability:
Within ± 0.2 PPM for 0 - 25 ppm
calibration, ± 3 ppm
for 0 - 200 calibration

Humidity:
0-100% non
condensing

Diminsions:
25"WX20"HX7"D