

An ISO 9001:2015 Company

## APPLIED TECHNO SYSTEMS

Process Monitoring Instruments

# ONLINE GAS MONITORING SYSTEM ( MODEL : ATS-105M )

APPLIED TECHNO SYSTEMS offer a Gas Monitor / Analyzer with Application Specific Sensor Technologies capable of continuously measuring and monitoring Toxic Gases, Hydrocarbons & Oxygen in Process, Flue Gas or Ambient Air.

H2, CL2, BR2, F2, HCI, HF, HCN, CO, CO2, NO, O3, NO2, SO2, H2S, NH3, O2, LPG / CNG, HYDROCARBONS, ORGANIC SOLVENTS / VAPOURS.



With Integral Sensor (WP)



With Integral Sensor Flameproof

## DESCRIPTION

The Monitor is a Single Gas Multipurpose monitor that combines simplicity and high performance in a low cost, low maintenance package. The rugged NEMA 4X or 7X assembly is suitable for a variety of industrial, commercial and general purpose applications to monitor HAZARDOUS, Toxic gases or Oxygen in Process Flue Gas or Ambient Air

Model ATS -105M single channel digital control modules are designed to supervise and display the status of a single integral or remote sensor transmitter assembly. Sensor transmitter is housed in a NEMA 4X wall mount enclosure or Ex-proof enclosure. Model ATS 105M Single Channel controllers interface with industry standard two or three wire 4-20 mA sensor or other standard voltage / current sensor transmitters and provide the user with concentration display and two independent adjustable alarm levels. The Graphics display can read the concentration. LEDs on the front panel provide indication of all three alarms.

The alarm relays can be programmed to be either latching or non-latching and to activate either as a rising or failing alarm. The relays are SPDT Form C type rated at 5 Amps. to provide direct alarm action, reducing the need for interposing relays. Local Alarm devices can be connected to the configurable on board alarms. The Fail Safe Supervisory provides a reliable indication that the Monitor is fully operational. The "Fail Safe" design monitors the input power and status of the power supply for the amplifiers. A failure of any one of these functions illuminates a "Fault" Light Emitting Diode.

## SPECIAL FEATURES

- Fast and accurate response.
- Flexibility to application needs
- Solid State Electronics
- Continuous Monitoring
- Two Alarm Levels

- Integral or Remote mounting Sensor.
- Interfaces with Industry Standard Transmitters.
- Sampling by Diffusion or sample Draw Pump.
- Fail Safe Protection
- Long Life Application Specific Gas Sensor Technologies.

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#### SENSOR TECHNOLOGY

The HEART of any Analytical system is the SENSOR. It is the most critical component in overall system performance. Because no single sensor technology is ideal for all applications, Applied Techno Systems offers Twelve different sensor technologies. This capability is mandatory in today's complex industrial market. Command of each of these technologies enables us to "FIT THE PRODUCT TO THE APPLICATION", and assure long term service and reliability & optimal performance in every application.

#### **SPECIFICATION**

Minimum Resolution : 0.1, 0.01 or 1 unit of the range.

Display : 128 X 64 Graphics LCD

Accuracy : ± 2% of FS & ± 0.5% of FS

Mounting : Wall

Sensor Technology : Electrochemical/NDIR/Solid state (as per Application)

Detection Method : Diffusion / Sample Draw Pump

LED Indication : Digital Continuous (Warn, Alarm & Trouble)

Linearity : ± 1%

Relative Humidity : 0 - 99% Non-condensing
Response Time : (90% in 10 seconds)

Signal Output for Recorder : 4-20 mA, Relay Output, HART (Optional)

Ingress Protection : IP 65

Alarm Setting : High and Very High Adjustable over full range

Alarm Circuits : SPDT 5 AMP 220V Contacts
Controls : Zero, Span, Alarm Setting

Power Source : 110V or 230V 50 Hz. 24 VD C (Optional)

#### GAS DETECTED & RANGES

	Gases	Ranges		Gases	Ranges
1	. Hydrogen	0 - 100 to 10000 PPM	11.	Hydrogen Sulphide	0 - 5 to 2000 PPM
2	. Chlorine	0 - 3 to 2000 PPM	12.	Formaldehyde	0 - 10 PPM
3	. Bromine	0 - 3 to 2000 PPM	13.	Nitric Oxide	0 - 100 1000 PPM
4	. Fluorine	0 - 1 to 10 PPM	14.	Nitrogen Dioxide	0 - 30 to 100 PPM
5	. Hydrogen Chloride	0 - 5 to 15 PPM	15.	Ammonia	0 - 300 PPM
6	. Hydrogen Fluoride	0 - 5 to 15 PPM	16.	Organic Solvents / Vapours	Depending on component
7	. Hydrogen Cyanide	0 - 10 to 100 PPM	17.	Ozone	0 - 1/5/100/200PPM
8	. Carbon Dioxide	0 - 05% to 20%	18.	Oxygen	0 - 30% to 100%
9	. Carbon Monoxide	0 - 50 to 4000 PPM	19.	LPG / CNG / H2	0 - 4% V/V (100% LEL)
1	0. Sulphur Dioxide	0 - 10 to 2000 PPM	15.	Combustible Gases	or 0 - 100% V/V

Note: Specifications and Features will vary with application. The above are established and validated during design, but are not to be construed as test criteria for every product. Due to applied commitment to research, design and product improvement, specifications are subject to change without notice.



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