

**For the Water We Drink.**



### **Fluoride Monitor**

The A15/82 Fluoride Monitor provides continuous measurement of fluoride levels in drinking water.

An ion-selective sensor provides measurement down to 0.05 PPM, and an automatic calibration function insures long-term measurement accuracy without operator attention.



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# **PRODUCT GUIDE**



## SENSING SOLUTIONS

*The quality of the air we breathe and the water we drink is of basic concern to everyone.*

*Analytical Technology is committed to developing and improving the sensing technologies that help insure the quality of the environment in which we live and work.*

**A**t ATI, we specialize in the application of electrochemistry to air and water monitoring problems. Our sensors are at work 24 hours a day, 365 days a year, year after year, helping safeguard the workplace against the dangers of toxic gas emissions and improving the control of potable water and wastewater treatment. From simple analog transmitters to sophisticated microprocessor based systems, we strive to provide the reliability and durability demanded in today's market.

Innovative product design with an emphasis on reduced operational maintenance is the goal in every product we offer. From our exclusive Auto-Test gas sensor verification system to our unique D.O. sensor cleaning system, we provide monitoring solutions that are reliable and cost effective. Quality product design, years of sensor development and manufacturing experience, and knowledgeable application support are an integral part of the products we offer.

## For the Water We Drink.

### Conductivity



Q-Series Conductivity Systems allow measurements in both ultrapure water and very high conductivity process water. A versatile 4-electrode sensor design provides measurement from 10 uS to 2 S with a single sensor, with 2-electrode sensors available for high purity water. Toroidal sensors are also available where electrode fouling is a major issue.

### Dissolved Sulfide



Model A15/81 Dissolved Sulfide Monitors continuously measure sulfides in water and wastewater streams. Sulfides in solution are stripped into a gas stream and measured using an H<sub>2</sub>S gas sensor, providing extremely high sensitivity. Applications include well water monitoring, wastewater influent measurements, and metal treatment systems using hydrosulfide as a reactant.

### Turbidity



Model A15/76 Turbidity Monitor provides sensitive and stable measurements in flowing water samples from as low as 0.01 NTU to 4000 NTU. Using the standard 90-degree light scatter technique, the sensor can be mounted in a flowcell, submerged directly into an effluent channel, or inserted into a pipe tee.

# Water Quality Monitors



## Auto Clean pH/ORP

Model Q45 Auto Clean Monitors combine conventional pH or ORP sensing with a unique sensor cleaning system that greatly reduces manual maintenance. A high pressure air blast cleaning system automatically cleans the sensor as often as necessary to insure reliable measurements.



## Particle Counter

Using advanced laser optic technology, Model C10/77 and B10/77 Particle Counters monitor filtration systems to insure product quality. The simple, go/no go, B10/77 particle counter provides a filter breakthrough alarm at low cost. The C10/77 measures multiple particle sizes and can be interfaced with computer data acquisition systems.



## Residual Sulfite

Model A15/66 Residual Sulfite Monitors continuously measure  $\text{SO}_3^-$  concentration to insure complete dechlorination of water streams. Protection of RO membranes and compliance with zero residual chlorine discharge requirements are major applications.

# Gas Detection Systems

## GAS DETECTION INSTRUMENTS

Gas detection instruments are available for a variety of toxic and flammable gases as shown in the list below. Packages are available for anything from single point to large multipoint systems.

<b>NH<sub>3</sub></b>	Ammonia
<b>CO</b>	Carbon Monoxide
<b>H<sub>2</sub></b>	Hydrogen
<b>NO</b>	Nitric Oxide
<b>O<sub>2</sub></b>	Oxygen
<b>COCl<sub>2</sub></b>	Phosgene
<b>Br<sub>2</sub></b>	Bromine
<b>Cl<sub>2</sub></b>	Chlorine
<b>ClO<sub>2</sub></b>	Chlorine Dioxide
<b>F<sub>2</sub></b>	Fluorine
<b>I<sub>2</sub></b>	Iodine
<b>HX</b>	Acid Gases
<b>C<sub>2</sub>H<sub>4</sub>O</b>	Ethylene Oxide
<b>C<sub>2</sub>H<sub>6</sub>O</b>	Alcohol
<b>O<sub>3</sub></b>	Ozone
<b>CH<sub>4</sub></b>	Methane (Combustible Gas)
<b>H<sub>2</sub>O<sub>2</sub></b>	Hydrogen Peroxide
<b>HCl</b>	Hydrogen Chloride
<b>HCN</b>	Hydrogen Cyanide
<b>HF</b>	Hydrogen Fluoride
<b>H<sub>2</sub>S</b>	Hydrogen Sulfide
<b>NO<sub>2</sub></b>	Nitrogen Dioxide
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>H<sub>2</sub>Se</b>	Hydrogen Selenide
<b>B<sub>2</sub>H<sub>6</sub></b>	Diborane
<b>GeH<sub>4</sub></b>	Germane
<b>AsH<sub>3</sub></b>	Arsine
<b>PH<sub>3</sub></b>	Phosphine
<b>SiH<sub>4</sub></b>	Silane
<b>HCHO</b>	Formaldehyde

# Gas Detection Systems

## Modular Gas Detector



**GasSens** Detectors provide gas measurement, display, visual and audible alarm, and analog output in a compact unit. Modular in design, these detectors are ideal for small to medium size detection applications. Detector configuration is easily customized to fit specific site requirements.

# For the Water We Drink.

## pH/ORP Transmitter



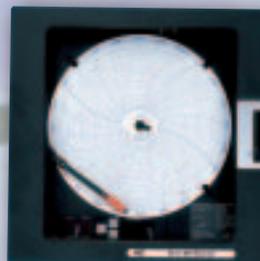
Q-Series pH and ORP Transmitters provide process measurements in a rugged industrial package with both 2-wire and AC powered models available. Differential type sensors manufactured from chemical resistant molded PEEK outlast conventional sensors, providing the most economical monitoring system you can buy.

## 2-Wire Transmitter



**UniSens** Gas Transmitters are the ultimate in transmitter technology. Transmitter electronics are universal, accepting up to 30 different gas sensors by simply plugging them in. And our exclusive Auto-Test sensor self-test feature reduces maintenance time to an absolute minimum.

## Chlorine Recorder



Series B20 Residual Chlorine Recorders provide a simplified system for documenting chlorine residuals in potable water. It is especially useful for smaller water systems for documenting compliance with safe drinking water standards. Recorders provide either 24 hour or 7 day charts.

## 2-Wire Transmitter



Series B12 Transmitters provide an alternative for 2-wire applications. This transmitter provides fewer features than the UniSens but at a lower cost. For OEM use or installations where advanced UniSens features are not required, **TransSens** is an economical alternative.

## Dissolved Ozone



Series Q45H/64 Dissolved Ozone Monitors offer direct sensing of D.O<sub>3</sub> concentrations for high purity water systems, bottled water facilities, and ozone treated potable water. Monitors provide interference free measurement down to 5 PPB with minimal maintenance and simple installation.

# Water Quality Monitors

**For the Air We Breathe.**

## Dissolved Oxygen



The Auto-Clean D.O. System is the answer to low maintenance D.O. monitoring. The system provides not only accurate measurement but also a unique high pressure air blast system that automatically cleans the sensor as often as needed, virtually eliminating manual sensor cleaning.

## Residual Chlorine



Series Q45H Chlorine Monitors offer on-line residual chlorine measurement without the need for chemical reagents. Systems are available for monitoring free chlorine in potable water, for combined chlorine monitoring in chloramine treated water, or total chlorine in wastewater effluent.

## Chlorine Dioxide



Model Q45H/65 Chlorine Dioxide Monitors provide a highly sensitive and selective method for monitoring residual  $\text{ClO}_2$  concentrations in potable water or cooling water systems. A direct measuring polarographic sensor allows measurement between 10 PPB and 20 PPM with minimal maintenance.

## Digital Gas Transmitter



Model D12 Gas Transmitters provide the ultimate in application flexibility. Loop-powered or 3-wire models with on-board relays are available, as are both combustible gas and universal toxic gas versions. In addition, digital communication using Hart™ or Modbus™ protocol are available.

## Alarm Receiver Systems



Series B14 Receivers are used in conjunction with 4-20 mA transmitters, either 2, 3 or 4 wire, to provide alarm functions either near a sensor location or at a remote point. Each receiver provides 3 alarms with individual relays for each alarm setpoint. Modular design allows flexibility in system size.

## Portable Gas Leak Detector



**PortaSens II** leak detectors provide a flexible tool for locating the source of toxic gas leaks from storage cylinders, process machinery, gas generation equipment, or piping systems. Interchangeable sensors allow one instrument to be used for a variety of gas detection requirements, with internal data logger standard.

# Gas Detection Systems



## Auto-Test Combustible Transmitter

Model A12-17 Combustible Gas Transmitters are unique in their ability to perform an automatic gas response test on the combustible gas sensing elements every 24 hours. A standard 4-20 mA output signal allows application in virtually any existing installation.



## Wet Gas Transmitter

A special B12 Transmitter System has been developed for measuring oxidizing gases such as  $\text{Cl}_2$ ,  $\text{Br}_2$ , or  $\text{O}_3$ , acid gases such as  $\text{HCl}$  or  $\text{HF}$ , or non-reactive gases such as  $\text{O}_2$  and  $\text{H}_2$  in gas streams saturated with moisture. These systems are ideal for wet scrubber monitoring applications.

## Infrared Gas Transmitter- LEL/ $\text{CO}_2$ / $\text{N}_2\text{O}$



Model D12IR provides gas measurements using infrared sensing technology. IR sensors are available for monitoring methane and other combustible gases, carbon dioxide, or nitrous oxide. Explosion-proof design allows use in virtually all environments, with local indication and optional integral alarm relays.

# Water Quality Monitors

## WATER QUALITY MONITORS

Water quality instruments are available for monitoring chemical components in drinking water, process water, and wastewater to bring better control to the treatment process. Instruments based on polarographic membrane sensors, potentiometric sensors, and laser optical sensors are designed for demanding applications requiring 24 hour a day reliability. Simplicity of operation, ease of maintenance, and low operating cost are key features of every ATI monitor.

Dissolved Oxygen  
Free Chlorine  
Combined Chlorine  
Total Chlorine  
Residual Chlorine Dioxide  
Water Quality Monitor  
Dissolved Ozone  
pH/ORP  
Particle Counters  
Residual Sulfite  
Conductivity  
Dissolved Sulfide  
Turbidity  
D.O. Data Logger  
Fluoride  
Hydrogen Peroxide  
Potassium Permanganate