
Model 900 Transmitters
Model 202 IR
Model 1000 Toxic Gases
Model 301B 19” Rackmount PID
DataWorks™ Software
Model 201B Wallmount PID
Model 112 PID
Model 210 19” Rackmount O₂
Model 204 TCD

CONTINUOUS ANALYZER PRODUCT LINE
Model 201-B - Analyzers for Total VOCs (total HC) in Air or Water

**PID or FID** with 5 digit Smart Meter

**Features:** No H₂ or air required for PID; Fast response-PID - 10 sec to 90% (higher ranges available with dilution system for PID); 1-20,000 ppm for FID; Class 1 Div. 1 or 2 (X or Z) purging available for hazardous areas; Options: Datalogger & alarms; 4-20 mA, 2 or 4, 8, 12, 16, 24 or 32 pt. Multipoint

**Applications:** Carbon bed breakthrough, Total hydrocarbons in air, Area monitoring for total hydrocarbons, Selected inorganic cpds via PID; Stack and incinerator monitoring - sampling systems available; Total VOC's in water with optional Model 650 sparging system

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Model 210 - Paramagnetic Oxygen Analyzer

**Paramagnetic O₂** with temperature and pressure compensation & 5 digit Smart Meter

**Features:** Temperature & pressure compensation for additional stability; fast response-PID - 10 sec to 90% (19") or wall mount enclosures available; Autocal, RS232; Alarms for PID or FID; Range - 100 ppm; Class 1 Div. 1 or 2 (X or Z) purging available for hazardous areas; Options: Datalogger & Alarms; 4-20 mA, 2 or 4, 8, 12, 16, 24 or 32 pt. Multipoint

**Applications:** Air liquification plants, Gas purity analysis, Hydrocarbon stream monitoring, Fermentation processes, Heat treating & annealing, Protective blanketing, Combustion efficiency, Stack Gas monitoring, Blast furnace ga, Natural gas

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Model 301B & 501B - Process Gas Chromatographs

The 301B is a low cost Process GC with an embedded Pentium PC and Windows operating system, PeakWorks chromatography software, Color VGA Display

**Enclosures:** 301B: 19" Rack (33 Lbs) or NEMA 4 wall (55 Lbs) mount enclosure, Class 1 Div. (1 or 2) for hazardous area

The Model 501B is a Process GC with an embedded Pentium PC and Windows 2000 NT operating system, PeakWorks chromatography software, multiple diagnostics, PeakWorks communication software, network card, Color VGA Display

**Enclosure:** 501B: NEMA 4 wall (85 Lbs) mount 2 enclosures - electronics & oven, Class 1 Div. (1 or 2) for hazardous area

**Detectors:** Specific (ECD, FPD), Selective (FID, PID) and Universal detectors (FUV & TCD) available

**Gas or liquid (heated) valves** available, Multipoint (1, 4, 8, 12 pt.), 1 alarm per channel, 2nd level optional

**Applications:** Ambient air, fenceline monitoring, process, stack emissions from ppb to % levels, measurement of non-methane HC, natural gas analysis, chlorinated HC, sulfur compounds, aromatic HC, amines, NH₃, H₂S, water, etc.; range sub ppb to 100%
**Model 202 IR**
- This *dual beam* (reference and measurement wavelength) IR instrument is very stable and has a fast response (15 sec. to 90%). It is ideal for process control, stack measurements or even ambient levels of CO₂ or freons.
- Measure Lower explosive limit (LEL) for hydrocarbons in drying processes; Measure methane (CH₄) in landfill gas, mines and other sources.

**Applications:** Monitor ambient CO₂ in buildings, greenhouses, stacks, landfill gases ..., CO in parking lots, CO₂ in stacks, Freons leaks from refrigeration.
- Typical Range: (CH₄/CO₂/Freons) high ppm to 100%.
- Species Measured: CH₄, CO₂, CO, Refrigeration Gases (Freons),  Z purging available.

**Model 112 PID +**
- Compact wall mount *PID or FID based* sensor in a NEMA 4 enclosure with 5 digit bright LCD, and an optional RS485 output. Can add 1-3 additional sensors such as LEL and 2 electrochemical or 3 electrochemical sensors. For safety monitoring. Z purging available; Monitoring total VOCs and toxic gases.

**Model 204 TCD**
- This technique determines the difference in thermal conductivity between a reference and a sample stream using a Wheatstone bridge circuit.
- NEMA 4 enclosure with 5 digit bright LCD, and a 4-20 mA output.

**Applications:** It is most useful for binary mixtures where the gases have a difference in thermal conductivity or for leak detection because of its universal response.
- Range 100 ppm to 100% for Hydrogen, Helium, CO₂, Neon ...
  - Z purging available.

**Model 1000 Toxic Gases**
- Measure: CO, SO₂, H₂S, Cl₂, HCl, H₂, NO, NO₂, O₃, HCN, CO₂, NH₃, PH₃, SiH₄ via electrochemistry for worker safety at ppm levels- single component only; Model 1004 for 2-4 Components including LEL + 3 electrochemical sensors- note no PID.
- NEMA 4 enclosure with 5 digit bright LCD digit meter & optional RS485 output, calibration stored in software-no pots to set, built in pump provides a fast response; dual setpoint, alarms, RS232 for multiple sensors.

**Model 900 Transmitters**
IR, TC, PID or various Electrochemical sensors in an explosion proof enclosure with a glass window. Output is 4-20 mA. **Measure** CH₄, CO₂ by IR, H₂ by TC, VOCs by PID. These units are powered by 18-30 VDC.

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**ENCLOSURE SPECIFICATIONS**

**Model 202**
- NEMA 4 Wall Mount (Only)
- 6.75" W x 11" H x 6.75" D
- Weight: 7.4 lbs.
- Material: Fiberglass

**Model 112**
- NEMA 4 Wall Mount (Only)
- 7" W x 9" H x 5" D
- Weight: 12 lbs.
- Material: Fiberglass

**Model 204**
- NEMA 4 Wall Mount (Only)
- 6.75" W x 11" H x 6.75" D
- Weight: 7.4 lbs.
- Material: Fiberglass

**Model 1000**
- NEMA 4 Wall Mount (Only)
- 7" W x 9" H x 5" D
- Weight: 12 lbs.
- Material: Fiberglass

**Model 900**
- Aluminum Explosion proof enclosure with 3.5" glass window
- Class 1 Div. 1
- Diameter: 4.75"
- Depth: 3.5" or 6.5"
**Model 600 Series for pH, ORP, T, dissolved O2 in water**
- A variety of systems are available from 1/8 to 1/2 DIN panel mounts
- Measure and/or control pH, ORP, conductivity, T, dissolved O2
- 4-20 mA output, dataloggers available
- **Industrial pH, conductivity, ion selective, & dissolved O2 electrodes available**
- Easy to maintain - designed to reduce maintenance by plant personnel
- Range pH: 0.0 to 14.00;
- Clean Water Act compliance
- pH, ORP, T, conductivity, dissolved O2 transmitters or Controllers
- Effluent monitoring
- Municipal water treatment
- Analysis of water for process input
- Monitoring cooling water

**DATAWORKS DATA COLLECTION SOFTWARE**

Data Works is PIDs data collection and logging software that can be used with a wide variety of Sensor or Analyzer outputs such as Ethernet, RS485 & 4-20 mA. The latter two outputs are for long distance transmission of data as shown in Table I below. In-plant installations are typically 4-20 mA or RS485 because of the long distances involved (1,000-5,000').

The software is written in visual C++ as an overlay/interface for various hardware devices. One hardware version used for our Model 201-B, 202, 203, 204, 210, 301B GC, 501 B GC or other manufacturer's instruments that have 4-20 mA outputs or an RS485 output. There is a 12 bit ADC on board with 16 digital input/outputs. The latter can be used to control calibration, diagnostics for the PID Analyzers units. Low...