PortaSens II

Gas leak detection is an important part of every plant safety program. Many industrial processes require the use of potentially toxic gases, and other processes may generate hazardous gases as a byproduct. Such hazards can be managed through careful equipment maintenance and regular monitoring for early signs of leakage.

The Series C16 **PortaSens II** portable gas leak detector is a versatile tool for performing regular leak checks in gas storage areas, around process equipment and piping, or in confined spaces prior to entry. Designed for easy one-hand operation, the detector contains an internal sample pump and a flexible sampling wand to allow pinpoint location of the source of leakage. A large character display insures that measured values are easily visible, and a back-light for the display insures readability in low or no light conditions.

A unique feature of the C16 detector is its ability to measure a variety of different gases by simply inserting the appropriate sensor for that gas. This means that one detector can be used to measure over 30 different gases or vapors, reducing the need to purchase individual detectors for each type of gas. And sensors can be changed quickly and easily, without the need for calibration when a sensor change is made.

Sensors used in the **PortaSens II** are ATI's newest miniaturized smart sensor modules. Each sensor module is actually a sensor, amplifier, and memory module in one compact package. Because of this design, sensor modules can be calibrated independently and simply plugged into any detector for immediate use. When installed in a detector, calibration data is loaded into the microprocessor so that no adjustments are needed. The result is that a detector can, for example, go from phosgene measurement to ammonia measurement in less than one minute.

Computer interface is a standard feature of the PortaSens II. An RS-232 output allows stored data to be downloaded to a PC through an interface cable supplied with the unit. Software is provided to allow simple data transfer.

Specifications

- **Range**: Dependent on sensor module used

- **Display**: Back-lit graphics liquid crystal display

- **Accuracy**: Sensor dependent but generally ± 5% of value (limited by cal. gas)

- **Sensitivity**: 1% of sensor module range

- **Outputs**: RS-232 output of stored gas values 0-1 VDC analog (requires optional output cable)

- **Memory**: 12,000 data points

- **Storage Interval**: Programmable from 1 minute to 60 minutes

- **Typical Capacity** : 8 days at 1 minute storage interval

- **Alarms**: Three concentration alarms (caution, warning, and alarm with adjustable setpoints) Low flow and low battery alarms Alarms displayed on LCD & Indicated by audible beeper

- **Power**: D cell battery, alkaline recommended, 75 hours operation Internal rechargeable Nicad for backup power, 6 hours operation 120 or 220 VAC chargers available

- **Operating Temp.**: -25º to +55ºC

- **Humidity**: 0-95% Non-condensing

- **Detector Material**: Glass Filled Polycarbonate

- **Size**: 3.5"(W) x 9"(H) x 5.5"(D) 89mm x 229mm x 140mm

- **Shipping Weight**: 7 lbs. (3.2 Kg.)

Features

- Interchangeable "Smart Sensors" for over 30 gases

- Internal sample pump and external sampling wand

- One-hand pistol grip design

- Standard "D" cell battery and rechargeable backup battery

- Easy to read back-lit graphics liquid crystal display

- Instantaneous and timed-sampling modes of operation

- Visual and Audible alarms

- Internal data-logger with RS-232 output

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PortaSens II Gas Detectors are supplied in a padded carrying case for easy storage and transport. Space is provided for an extra battery plus up to two sensor keepers, which means up to 8 extra sensors ready for immediate use. The following components are standard.

- PortaSens Gas Detector
- 10" Teflon Lined Sampling Wand
- RS-232 Output Cable
- Spare "D" Cell Battery
- Calibration "T" Fitting
- Spare Filters
- Flowmeter
- Battery Charger
- Sensor Keeper

Ordering Information

#00-0998   MODEL C16-1 PortaSens II, 120 VAC Charger
#00-0999   MODEL C16-2 PortaSens II, 220 VAC Charger

The basic **PortaSens II** detector does not include sensor modules. Because the C16 is designed to accept any gas sensor, you can select one or more sensor modules from the list below. Each sensor module is factory calibrated at the time of shipment and is ready to use by plugging it into the receptacle in the C16 manifold. Each module can be calibrated for the minimum and maximum ranges indicated. The standard factory calibration for the module is listed in parentheses.

Part#	Gas & Range	Part#	Gas & Range
00-1000	Bromine, 0-1/5 PPM (2 PPM Std.)	00-1021	Nitric Oxide, 0-50/500 PPM (200 PPM Std.)
00-1001	Bromine, 0-5/200 (20 PPM Std.)	00-1022	Nitrogen Dioxide, 0-10/200 PPM (20 PPM Std.)
00-1002	Chlorine, 0-1/5 PPM (2 PPM Std.)	00-1181	NOx , 0-50/500 PPM (50 PPM Std.)
00-1003	Chlorine, 0-5/200 (20 PPM Std.)	00-1023	Sulfur Dioxide, 0-10/500 PPM (20 PPM Std.)
00-1004	Chlorine Dioxide, 0-1/5 PPM (2 PPM Std.)	00-1024	Arsine, 0-500/2000 PPB (1000 PPB Std.)
00-1005	Chlorine Dioxide, 0-5/200 (20 PPM Std.)	00-1025	Arsine, 0-10/200 PPM (10 PPM Std.)
00-1359	Chlorine Dioxide, 0-200/1000 PPM (1000 PPM Std.)	00-1026	Diborane, 0-500/2000 PPB (1000 PPB Std.)
00-1006	Fluorine, 0-1/5 PPM (2 PPM Std.)	00-1027	Diborane, 0-10/200 PPM (10 PPM Std.)
00-1007	Fluorine, 0-5/200 (20 PPM Std.)	00-1028	Germane, 0-500/2000 PPB (1000 PPB Std.)
00-1008	Ozone, 0-1/5 PPM (2 PPM Std.)	00-1029	Germane, 0-10/200 PPM (10 PPM Std.)
00-1009	Ozone, 0-5/200 PPM (20 PPM Std.)	00-1030	Hydrogen Selenide, 0-500/2000 PPB (1000 PPB Std.)
00-1358	Ozone, 0-200/1000 PPM (1000 PPM Std.)	00-1031	Hydrogen Selenide, 0-10/200 PPM (10 PPM Std.)
00-1036	Iodine, 0-1/5 PPM (2 PPM Std.)	00-1032	Phosphine, 0-500/2000 PPB (1000 PPB Std.)
00-1037	Iodine, 0-5/200 PPM (20 PPM Std.)	00-1033	Phosphine, 0-10/200 PPM (10 PPM Std.)
00-1010	Ammonia, 0-50/500 PPM (200 PPM Std.)	00-1034	Phosphine, 0-200/2000 PPM (1000 PPM Std.)
00-1011	Ammonia, 0-500/2000 PPM (1000 PPM Std.)	00-1035	Silane, 0-10/200 PPM (10 PPM Std.)
00-1012	Carbon Monoxide, 0-50/1000 PPM (200 PPM Std.)	00-1284	Silane, 0-500/2000 PPB (1000 PPB Std.)
00-1013	Hydrogen, 0-1/10% (4% Std.)	00-1038	Acid Gases, 0-10/200 PPM (20 PPM Std.)
00-1041	Hydrogen, 0-500/2000 PPM (2000 PPM Std.)	00-1039	Ethylene Oxide, 0-20/200 PPM (20 PPM Std.)
00-1014	Oxygen, 0-5/25% (25% Std.)	00-1040	Formaldehyde, 0-20/200 PPM (20 PPM Std.)
00-1015	Phosgene, 0-1/5 PPM (2 PPM Std.)	00-1349	Formaldehyde, 0-500/2000 PPM (1000 PPM Std.)
00-1016	Phosgene, 0-5/100 PPM (100 PPM Std.)	00-1042	Hydrogen Peroxide, 0-10/100 PPM (20 PPM Std.)
00-1017	Hydrogen Chloride, 0-10/200 PPM (20 PPM Std.)	00-1169	Hydrogen Peroxide, 0-200/2000 (1000 PPM Std.)
00-1018	Hydrogen Cyanide, 0-10/200 PPM (20 PPM Std.)	00-1043	Alcohol, 0-50/500 PPM (200 PPM Std.)
00-1019	Hydrogen Fluoride, 0-10/200 PPM (20 PPM Std.)	00-1044	Alcohol, 0-500/2000 PPM (2000 PPM Std.)
00-1020	Hydrogen Sulfide, 0-10/200 PPM (20 PPM Std.)	00-1057	Acetylene, 0-200/2000 PPM (500 PPM Std.)

ATI ANALYTICAL TECHNOLOGY, INC.

App4Water
2 Forest Drive
Catonsville, MD 21228
410.744.9040 *phone*
410.744.6062 *fax*
www.app4water.com