

**ATI**  
ANALYTICAL TECHNOLOGY, INC.



# *PortaSens III* GAS LEAK DETECTOR

# PortaSens III

## MODEL D16 GAS DETECTOR

Locating the source of gas leaks can be a challenge, especially in plant areas with multiple potential leak sources. Ammonia refrigeration piping, ozone generator skids, and hazardous gas piping systems are just a few of the applications where identifying exact leak sites is difficult

ATI's new PortaSens III portable leak detector (Model D16) is ideal for locating leak sources or simply for measuring gas concentrations in the workplace. With a built-in sampling pump and inlet wand, sample is drawn from precise locations where leaks may occur. Areas around valve packing, flanges, compression fittings and other system components are easily checked to find the higher gas levels that exist near the leak site.

The PortaSens III is physically similar to its predecessor, the PortaSens II which has been in service for the past 15 years. The internals of the instrument have been completely redesigned with a modern USB computer interface, a color touch-screen display, and improved pump control. As with the original, the D16 detector has the ability to measure a wide variety of gases by simply inserting the appropriate sensor for that gas. The D16 can use any of over 60 different sensor modules, providing nearly unmatched flexibility. Sensors can be changed quickly and easily without the need for calibration.

Sensors used in the PortaSens III are ATI's H-Series 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.

### FEATURES

- Interchangeable "Smart Sensors" for gas flexibility
- NEW IR sensors for methane & carbon dioxide
- Internal sample pump and external sampling wand
- One-hand pistol grip design
- NiMH "D" cell rechargeable battery or alkaline cell
- Easy to read back-lit color graphics LCD
- Instantaneous and timed-sampling modes of operation
- Visual and Audible alarms
- Internal 4 Gb data-logger with USB output



## SMART SENSORS



The basic PortaSens II detector does not include sensor modules. Because the D16 is designed to accept any ATI smart sensor module, you must select one or more sensors 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 D16 manifold. Each module can be used for logging data over minimum and maximum ranges indicated.



### AVAILABLE SENSORS

00-1000 Br<sub>2</sub>, 0-1/5 ppm

00-1001 Br<sub>2</sub>, 0-5/200 ppm

00-1002 Cl<sub>2</sub>, 0-1/5 ppm

00-1003 Cl<sub>2</sub>, 0-5/200 ppm

00-1004 ClO<sub>2</sub>, 0-1/5 ppm

00-1005 ClO<sub>2</sub>, 0-5/200 ppm

00-1359 ClO<sub>2</sub>, 200/1000 ppm

00-1425 ClO<sub>2</sub>, 0-1/5 ppm (low Cl<sub>2</sub>)

00-1006 F<sub>2</sub>, 0-1/5 ppm

00-1007 F<sub>2</sub>, 0-5/200

00-1008 O<sub>3</sub>, 0-1/5 ppm

00-1009 O<sub>3</sub>, 0-5/200 ppm

00-1358 O<sub>3</sub>, 200/1000 ppm

00-1163 O<sub>3</sub>, 500/2000 ppb

00-1010 NH<sub>3</sub>, 0-50/500 ppm

00-1011 NH<sub>3</sub>, 0-500/2000 ppm

00-1012 CO, 0-50/1000 ppm

00-1013 H<sub>2</sub>, 0-1/10%

00-1041 H<sub>2</sub>, 0-500/2000 ppm

00-1014 O<sub>2</sub>, 0-5/25%

00-1015 COCl<sub>2</sub>, 0-1/5 ppm

00-1016 COCl<sub>2</sub>, 0-5/100 ppm

00-1017 HCl, 0-10/200 ppm

00-1018 HCN, 0-10/200 ppm

00-1019 HF, 0-10/200 ppm

00-1020 H<sub>2</sub>S, 0-10/200 ppm

00-1469 H<sub>2</sub>S, 200/1000 ppm

00-1021 NO, 0-50/500 ppm

00-1022 NO<sub>2</sub>, 0-10/200 ppm

00-1023 SO<sub>2</sub>, 0-10/500 ppm

00-1024 AsH<sub>3</sub>, 0-500/2000 ppb

00-1025 AsH<sub>3</sub>, 0-10/200 ppm

00-1026 B<sub>2</sub>H<sub>6</sub>, 0-500/2000 ppb

00-1027 B<sub>2</sub>H<sub>6</sub>, 0-10/200 ppm

00-1028 GeH<sub>4</sub>, 0-500/2000 ppb

00-1029 GeH<sub>4</sub>, 0-10/200 ppm

00-1030 H<sub>2</sub>Se, 0-500/2000 ppb

00-1031 H<sub>2</sub>Se, 0-10/200 ppm

00-1032 PH<sub>3</sub>, 0-500/2000 ppb

00-1033 PH<sub>3</sub>, 0-10/200 ppm

00-1034 PH<sub>3</sub>, 0-200/2000 ppm

00-1035 SiH<sub>4</sub>, 0-10/200 ppm

00-1036 I<sub>2</sub>, 0-1/5 ppm

00-1037 I<sub>2</sub>, 0-5/200 ppm

00-1038 Acid Gas, 0-10/200 ppm

00-1039 ETO, 0-20/200 ppm

00-1040 HCOH, 0-20/200 ppm

00-1349 HCOH, 500/2000 ppm

00-1042 H<sub>2</sub>O<sub>2</sub>, 0-10/100 ppm

00-1169 H<sub>2</sub>O<sub>2</sub>, 200/2000 ppm

00-1043 Alcohol, 0-50/500 ppm

00-1044 Alcohol, 0-500/2000 ppm

00-1057 C<sub>2</sub>H<sub>2</sub>, 0-200/2000 ppm

00-1181 NO<sub>x</sub>, 0-50/500 ppm

00-1450 DMA, 100/200 ppm

00-1455 HBr, 10/200 ppm

00-1516 HC Sensor – Consult Factory

00-1045 CH<sub>3</sub>COOH, 100/500 ppm

00-1704 PAA Vapor, 1/5 ppm

00-1705 PAA Vapor, 10/100 ppm

00-1883 IR CH<sub>4</sub>, 0-20/100% LEL

00-1886 IR CO<sub>2</sub>, 0-0.2/1.5%

#### Notes:

1. X/XX for each sensor indicates minimum and maximum data logging ranges for that sensor.
2. 00-1883 LEL CH<sub>4</sub> sensor also responds to many other hydrocarbons. Response to other hydrocarbons is not 1:1 with CH<sub>4</sub>.

PortaSens III Gas Detectors are supplied in a padded carrying case for easy storage and transport. An extra battery is provided plus space for up to two sensor keepers which means up to 8 extra sensors ready for immediate use.



The following components are standard.


- PortaSens III Gas Detector
- Spare Filters
- 10" Teflon Lined Sampling Wand
- Flowmeter
- USB Cable
- Spare NiMH "D" Cell Battery
- Sensor Keeper
- Calibration "T" Fitting

## ORDERING INFORMATION

#00-1876 MODEL D16 PortaSens III

#28-0039 NiMH Battery Charger for 2 "D" cells  
(Charger does not fit inside PortaSens III case)

## SPECIFICATIONS

Range:	Dependent on sensor module used
Display:	Backlit, touch-sensitive color graphics LCD
Accuracy:	Sensor dependent but generally $\pm 5\%$ of value (limited by cal. gas)
Sensitivity:	Typically 0.1-1% of sensor module range
Output:	USB transfer of stored gas values
Memory:	4 Gb (millions of data points)
Storage Interval:	Programmable from 1 minute to 60 minutes
CE	2014/35/EU – Low voltage directive 2014/30/EU – Electromagnetic compatibility
Alarms:	Three concentration alarms (caution, warning, and danger with adjustable setpoints). Low flow and low battery alarms displayed on LCD & indicated by audible beeper
Power:	Rechargeable NiMH D cell battery runs about 10 hours continuously. Two D cells supplied with unit. Alkaline D cell battery may also be used.
Charger:	Optional charger available
Operating Temp.:	-25° to +55°C
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.)
Environmental	 RoHS Compliant

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