

Advanced Environmental Instrumentation

Harnessing the Power of Mobile Computing



✓ Surveyed

✓ Documented

✓ Reported



ADVANCEDSENSE® TOX

DIRECTSENSE®

Toxic Gas Test Meters



GRAYWOLF®
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Realtime

File	Log	Probe	View
Hydrogen Chloride			0.2 ppm
Chlorine			0.64 ppm
Oxygen			20.8 %
Sulfur Dioxide			0.1 ppm
Hydrogen			0 ppm
Temperature			24.4 °C

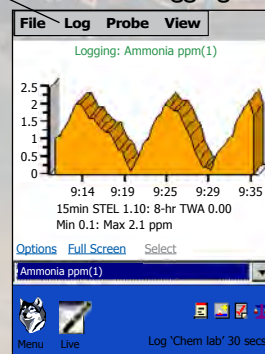
Example Screens

Click the SNAP icon to record measurements, time, date and detailed location name

Snap-Shot Log

File	Log	Probe	View
Ozone			0.54 mg/m3
Ammonia			1.3 mg/m3
Sulfur Dioxide			1.3 mg/m3
Nitric Oxide			2.0 mg/m3
Hydrogen Sulfide			0.15 mg/m3
Temperature			22.9 °C
Barometric			754.2 mmHg

Trend Logging



On-Board Docs



GrayWolf is transforming how to Measure, Data-log and Document worker exposure levels and indoor air quality parameters. The AdvancedSense and DirectSense TOX are powerful environmental data collection tools; intuitive and Easy-To-Use.

- Choose from SO₂, NO₂, NO, CO, H₂S, HCN, EtO, Cl₂, O₂, O₃, NH₃, HCl, H₂, SiH₄, AsH₃, PH₃... and more
- Up to 5 electrochemical gas sensors (plus °F / °C) per probe
- Connect multiple probes simultaneously (up to 4)
- “Snap-Shot” instantaneous data capture and long-term trending
- Stores measured data along w/calibration history, text notes, audio notes, user created field note templates... and more
- On-board measurement tips, industry guidelines and help files
- Remote Access any WiFi enabled platforms via optional GrayWolfLive™
- Cal checks, and extensive additional features are highly intuitive and Easy-To-Use

Choose Your Platform:

AdvancedSense Handheld Embedded PC Meter



WolfPack® Modular Area Monitor



GrayWolf Supplied Tablet
Entry level platform with great standard features (built-in camera, WiFi)



Or Use Your Own Windows PC as the instrument platform
Remote Data Access to, and email/text alerts from, any WiFi enabled platforms via optional **GrayWolfLive**™

Advanced Toxic Gas Measurement

Example AdvancedSense/WolfPack® Screens

Intuitive File Naming

Alarm Lines

Video Help

Realtime (multi-probe)

Sensor Tips
(extensive info for each parameter)

Documenting and data-logging gas parameters has never been easier. Provide a descriptive name for files using the virtual keyboard. Record your readings as snap-shot data captures, or as trend logs over time. On-board educational info.

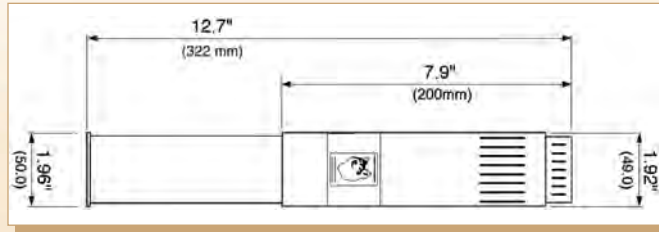
Efficiently attach notes, in-situ (or after-the-fact) direct to data files:

- Text
- Audio
- Photos/Video
- Events (time-tagged text)
- Drawings
- Template “Field Forms”
- Custom
- Auto-Fill (data & text)

Example WIN 8/7/XP Screens

GrayWolf provides embedded computer based meters and Windows tablets that are ideal for the application; or connect probes to your own PC.

GrayWolf's TOX kits come with WolfSense PC software for data transfer, analysis, graph/report generation and/or simple export to Excel.



- Easy to calibrate all parameters
- Calibration history stored in probe
- CO & H₂S available in a single sensor
- Allows up to 5 gas sensors in one probe
- Plus Temperature

TG-501

Select up to 5 gas sensors in one probe (plus °F/°C):

Note: Sensors are factory installed (this optimizes their L.O.D.s). Sensors may be added or changed at a later time by GrayWolf or by an authorized cal lab.

- Sulfur Dioxide (SO₂)
- Nitrogen Dioxide (NO₂)
- Nitric Oxide (NO)
- Carbon Monoxide (CO)
- Hydrogen Sulfide (H₂S)
- Hydrogen Cyanide (HCN)
- Hydrogen Chloride (HCl)
- Hydrogen Fluoride (HF)
- Ethylene Oxide (C₂H₄O)
- Chlorine Dioxide (ClO₂)
- Ozone (O₃)
- Oxygen (O₂)
- Ammonia (NH₃)
- Chlorine (Cl₂)
- Hydrogen (H₂)
- Fluorine (F₂)
- Phosphine (PH₃)
- Arsine (AsH₃)
- Silane (SiH₄)
- Phosgene (COCl₂)

Display units as:

- PPB
- PPM
- µg/m³
- mg/m³ (mass readings are auto compensated w/optional AdvancedSense barometric pressure sensor)



EC-202

Any 1 (one) sensor in one probe, plus °F/°C



FM-801
Formaldehyde
(ppb HCHO)

Interface these meters to GrayWolf platforms; and/or use as stand-alones

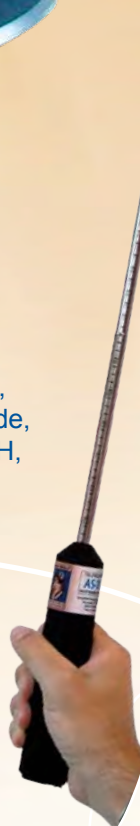
TG-502
VOCs (PID) plus 3 specific gases, %RH, and temperature



IQ-610
Carbon Dioxide, Carbon Monoxide, ppb VOCs, %RH, °F / °C plus one additional gas



AS-201
Air Velocity probe



PC-3016A
6-Channel Particle Meter



PM-205
Particulate Concentration





ADVANCEDSENSE[®] DIRECTSENSE[®] TOX

Toxic Gas Test Meters

SPECIFICATIONS: TG-501, EC-202

Gas	Range/ Resolution (ppm)	Limit of Detection (ppm)
Standard Sensors		
Ammonia (NH ₃) Standard range sensor	0.0 to 100.0	<1.0
Ammonia (NH ₃) High range sensor	0 to 1000	12
Carbon Monoxide (CO solo)	0.0 to 750.0	0.5
Carbon Monoxide (CO combo w/H ₂ S sensor)	0.0 to 500.0	1.0
Chlorine (Cl ₂)	0.00 to 20.00	0.02
Hydrogen (H ₂)	0 to 1000	2.0
Hydrogen Chloride (HCl)*	0.0 to 30.0	0.7
Hydrogen Cyanide (HCN)	0.0 to 30.0	0.2
Hydrogen Sulfide (H ₂ S solo)	0.00 to 50.00	<0.03
Hydrogen Sulfide (H ₂ S combo w/CO sensor)	0.0 to 200.0	0.5
Nitric Oxide (NO)*	0.0 to 250.0	0.2
Nitrogen Dioxide (NO ₂)	0.00 to 30.00	0.02
Oxygen (O ₂)	0.0 to 25.0%	0.2%
Ozone (O ₃)	0.00 to 1.00	0.02
Sulfur Dioxide (SO ₂)	0.0 to 30.0	<0.1
Exotic Sensors		
Arsine (AsH ₃)	0.00 to 1.00	0.02
Chlorine Dioxide (ClO ₂)	0.00 to 1.00	0.02
Diborane (B ₂ H ₆)	0.00 to 1.00	0.03
Ethylene Oxide (C ₂ H ₄ O)*	0.0 to 20.0	0.3
Fluorine (F ₂)	0.00 to 1.00	0.02
Hydrogen Fluoride (HF)	0.00 to 10.00	<0.1
Phosgene (COCl ₂)	0.00 to 1.00	0.02
Phosphine (PH ₃)	0.00 to 5.00	0.05
Silane (SiH ₄)	0.00 to 50.00	0.05
Temperature: (PT100)	Accuracy: ±0.3°C	
	Range: -10.0° to 160.0°F (-25.0° to +70.0°C)	
Operating Range:	0 to 98%RH (non-condensing), -20° to 50°C	
	Specific gas sensors may have a reduced operating range	
Probe Dimensions:	2in. (5cm) dia. x 12.5in. (30cm) lgth.	
Weight (probe):	w/batteries 1lb. 10oz. (0.7kg)	
Power (probe):	2 x D cells; typical battery life 1500 hrs.	
	Meter/Mobile PC battery life varies by make and model	
PC Software Requirements:	Windows 8/7/XP	

*HCl, NO, EtO; up to 2, but not all 3 may be installed into a single TG-501 probe
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT FURTHER NOTICE

- All gas sensors are electrochemical. One per EC-202 or up to 5 per TG-501 may be included. Typical sensor life, sensor drift and response times vary by sensor.
- Probe wall mounting brackets, automated reporting software, and many other accessories are available from GrayWolf. View them on our website at accessories.graywolvesensing.com.

✓ MEASURE SMART

✓ REPORT EFFICIENTLY



◀ **PCC-15** ▶
Multi-Probe Security Case (shown at left w/ optional **ACC-BRK1** brackets for external HCHO or particulate meters)



▲ **PCC-05IQ** probe pouch. Neck pouches are also available for tablet, AdvancedSense or Pocket PC



▲ **CA-GSXX** Gas Calibration Kit. Specific calibration gases are available in various portable cylinder sizes

▶ **ACC-TPD1** tripod shown w/ **ACC-MNT2P** dual mount and **ACC-MNT1** & **ACC-MNT3** meter mounts. A soft carry case (**PCC-TPDL**) is also included with the **ACC-TPDL-KIT** tripod kit



▶ **CA-HD2** Calibration Hood
May alternatively be used with air pump to draw sample across sensors



▶ **ACC-APUMPI** Portable Air Sampling Pump with belt clip



- **AdvancedSense TOX** kits include an AdvancedSense meter, **DirectSense TOX TAB** kits include a tablet PC. These complete kits also come with WolfSense PC desktop data transfer software, hardshell security case, probe/meter pouches and more. Contact GrayWolf for details.



▶ **ACC-FIL6** Probe
Filters for dirty environments



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