# Advanced Environmental Instrumentation
## Harnessing State-of-the-Art Technology for Air Measurement Applications

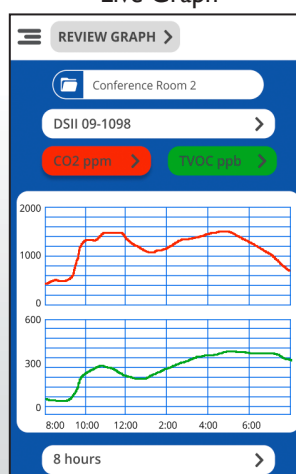✓ Surveyed          ✓ Documented          ✓ Reported

### Example Screens

**Menu Screen**



**Live Graph**



**Tabular Display**



Audio Notes

Descriptive Data File Names

# ADVANCEDSENSE® XM
## Environmental Test Meter Plus



BaSystemen BV
Protonstraat 13G |
9743 AL Groningen
+31505712124
info@basystemen.nl

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The AdvancedSense XM is the next generation of GrayWolf's purpose-built environmental meters. They now run advanced, WolfOS™ application software w/o the overhead of operating systems such as Android or Windows. The same popular, rugged form factor, but with all-new, cutting-edge electronics. For 25 years, GrayWolf has transformed the way that environmental measurements are taken. Display, data-log and annotate (on-site) a broad range of parameters with an accurate, highly-reliable instrument.

- Simultaneously connect 1 or more GrayWolf DirectSense® II probes with up to 8 sensors per probe plus a 6-channel, high-end particulate meter (PM1, PM2.5, PM10, TPM and more)

- Available sensors: TVOCs, CO2, CO, O3, NH3, HCHO, H2S, NO, NO2, SO2, Cl2, O2, EtO, HCN, H2, HF, HCl, F2, AsH3, SiH4, %RH, °C/°F, differential pressure, airspeed, dewpoint and other parameters

- Bright, back-lit color touch screen

- Bluetooth wireless and/or cable connection to DirectSense II probes and particle meters

- WiFi for optional GrayWolfLive® remote data access and for emailing data

- **Feature rich** with productivity tools that make your environmental surveys more efficient, more detailed, more reliable:

  - Microphone for audio documentation of surveys
  - Text notes and audio notes auto-attach to data
  - Speaker for audible queues, alarms and more
  - On-board educational info, sensor tips and more
  - Data transfer & reporting software for trend graphs, note management and much more
  - Or simply download data and notes as .CSV files

- Multi-Language
- Highly intuitive and extremely Easy-To-Use

# ADVANCEDSENSE® XM

## Environmental Test Meter Plus

SPECIFICATIONS:
(for additional sensor/probe specifications refer to GrayWolf's DirectSense II, IAQ, TOX, TVOC, AIR, and pitot tube brochures graywolfsensing.com/product-literature/)

### General:

| | |
|---|---|
| Dimensions: | 96mm (3.8in.) w. x 177mm (7.0in.) h. x 47mm (1.8in.) d. |
| Construction: | Rugged polycarbonate plastic with rubberized side grips. IP64 |
| Weight: | 540g (1lb. 3.1oz.) Add 50g (1.7oz.) for auto-zeroing ΔP option |
| Screen Size: | 3.5" HVGA 320 x 480 color touch screen with backlight |
| Memory: | 32GB for data-logging (millions of readings) and notes (event/audio), documents and WolfSafe™ auto-data backup |
| Wireless Network: | Wi-Fi 802.11 b/g/n with integrated antenna and Bluetooth 4.0 standard (may optionally be ordered with wireless hardware removed) |
| Audio: | Integral microphone on front for audio recording and 8 ohm speaker on back for alarms, audio queues, and audio note replay (may optionally be ordered with microphone removed) |
| Mounting: | ¼" - 20 thread (on back) for belt clip, etc. (& for included mini tripod/stand) |
| Operating Range: | -10°C to 50°C (15°F to 122°F), 0 to 100 %RH non-condensing |

### Connectors:

2 x Rugged 8-pin push-pull sockets for GrayWolf DirectSense probes (the AdvancedSense XM will support up to 4 x DirectSense probes with Y-adapters or via Bluetooth)

1 x Rugged push-pull socket for particulate meters or RH-AS2 direct-connect °C/°F/%RH probe

2 x sub-mini type K thermocouple temperature sockets. Range -80 to 1100°C (-110 to 2010°F)

1 x Rugged 8-pin push-pull top socket for hotwire air velocity probes (AS-201/AS-202A)

1 x USB-C socket. A USB-C to USB-A download cable is supplied as standard.

1 x 12V, 2.1mm DC power socket

Optional: 2 x 4mm posts for differential pressure tubing

### Power:

| | |
|---|---|
| Battery: | 4250 mAh Lithium Ion rechargeable |
| Battery Life: | 24 hours typical for new battery w/ backlight & wireless off (and probes self-powering) |
| | The AdvancedSense XM, when cabled, can power DirectSense II probes. Battery life will vary when powering probes, DP pressure sensors and/or wireless. |
| Recharge time: | 4 hours typical. Red/green front LED displays charging/fully charged status. |
| Power supply: | 100/240VAC wall charger (US, EU, UK, AU plugs, and 3m ext cable included) |

**Not all Wolf OS software app features shown may yet be available, but can be downloaded FREE when released. All specifications are subject to change without further notice.**
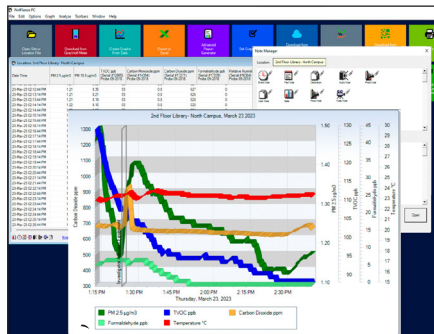
### Built-in Sensors:

| | Barometric Pressure | Optional Differential Pressure (**DP-702LH**) |
|---|---|---|
| Range<br>(auto-ranging, dual DP sensors) | 600 to 825 mmHg, 800 to 1100 mBar, 23.50 to 32.50 inHg, 0.80 to 1.10 atm | ±10,000Pa, ±40 inH₂O, ±1000 mmH₂O, ±100 mbar, ±70 mmHg |
| Resolution | 0.1 mmHg, 0.1 mBar, 0.01 inHg, 0.01 atm | 0.1 Pa, 0.001 inH₂O, 0.01 mmH₂O, 0.001 mbar, 0.001 mmHg |
| Accuracy<br>(auto-zeroing enabled) | ±0.1% rdg | ±1% of rdg ±0.1Pa up to 250Pa, ±1%rdg ±4Pa >250Pa (±1% of rdg ±0.001 inH₂O to 1.000 inH₂O, ±1%rdg ±0.015 inH₂O>1.000 inH₂O) |

The barometric pressure sensor, supplied as standard, will compensate mass concentration readings (µg/m3) for pressure changes when enabled.

Optional Differential Pressure has exceptional low (and high) range accuracy and auto-zeros (every 2 minutes by default but zeroing frequency is user adjustable to 5 minutes or OFF)
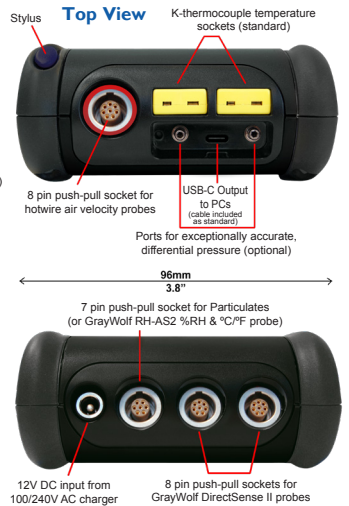
**WolfSense® PC** ▶
data transfer and analysis software supplied as standard



✓ **Measure Reliably**

**Front View**



**AdvancedSense XM**
**Environmental Test Meter**

Stylus

Rugged rubber over grips

Color touch screen (w/ backlight)

View button (changes screen view)

Power (on/off) button

AC charge indicator

Microphone (attach audio notes directly to data files)

✓ **Report Efficiently**

**Top View**

Stylus

K-thermocouple temperature sockets (standard)

8 pin push-pull socket for hotwire air velocity probes

USB-C Output to PCs (cable included as standard)

Ports for exceptionally accurate, differential pressure (optional)

96mm / 3.8"

**Bottom View**

7 pin push-pull socket for Particulates (or GrayWolf RH-AS2 %RH & °C/°F probe)

12V DC input from 100/240V AC charger

8 pin push-pull sockets for GrayWolf DirectSense II probes

**Right Side View**

47mm / 1.8"

177mm / 7.0"

**Back View**

Speaker

Barometric pressure calibration port

1/4"-20tpi brass insert for tripod/belt clip/etc.

Tripod kits with mounting brackets are available for the AdvSXM, probes & more.

**PCC-AS01** pouch with neck-strap for hands-free surveys.
▼ Also hand-strap/belt-loop.

▲ **PCC-20A** Hardshell security case holds AdvS XM, probes (DSII inside or extended for secure monitoring) & accessories. Smaller & larger cases also available.