Advanced Environmental Instrumentation

Harnessing Leading-Edge Sensor and Mobile Computing Technology

✓ Surveyed ✓ Documented ✓ Reported

Example Screens

Live (AdvancedSense)

WolfSense
File Log Probe View

Air Speed	208 ft/m
Temperature	68 °F
Volume Flow	1021 cfm

Notes Log Locs Graph Tips

Min/Max/Avg

WolfSense
File Log Probe View

Parameter	Average	Min
Air Speed m/s	0.38	0.22
Temperature °C	20	20
Volume Flow m3/h	327.5	188
ΔP Pa	-3.5	-4.1

Manual Mode: Samples taken 10

Clear Add Manual Log

Menu Live   Live: Southwest Duct

Live (Tablet)

File Log Probe View   WolfSense

Air Speed	1.42 m/s
Temperature	22 °C
Volume Flow	1003.7 m3/h

Volume Flow
AS201 ID = 2
Area Diameter HxW
50 0 cm
Calculate as l/s
Sample Time 15 secs

Enter values, then press CALCULATE while moving the Air Velocity sensor slowly over the sample area.

Live Locs Notes Log Graph Tips Review MinMax Docs   Calculate

Live: Animal LabXDA Duct

Audio Note

Audio Note: Southwest Duct

ERASE Play Stop Record

Available Memory: WolfSense\Research Bldg= 25.34GB

OK

▲ Attach Audio, Text and other notes in the field

Air Speed 1.56 m/s
Temp   28 °C
Vol Flow 441.1 l/s

Audio Note

Live: Tech Room 1

AdvancedSense® BE
Environmental Test Meter

apps PC CHARGE GRAYWOLF power mic

ADVANCEDSENSE® AIR
DIRECTSENSE® AIR

Air Velocity Meters

The AdvancedSense AIR and DirectSense AIR integrate precision thermal "hotwire" anemometer sensor technology and GrayWolf's comprehensive software with the power and performance of mobile PC computing. Intuitive and Easy-To-Use. Airspeed measurement has evolved to an advanced new level.

- Measures Air Velocity, Volume Flow & °C / °F (with options for more parameters)
- Patented telescoping hotwire probe design eliminates internal cabling, avoids cable kinking and chafing
- Large, tactile color display of measurements (alternatively display a graph)
- Versatile Averaging function
- **Best-of-Class Accuracy**

- Optional fumehood face velocity and duct traverse calculation software
- Stores measurements along with date, time, text, audio, drawings and more
- Optional 90 degree articulating probe
- Graduated markings (cm & inches)
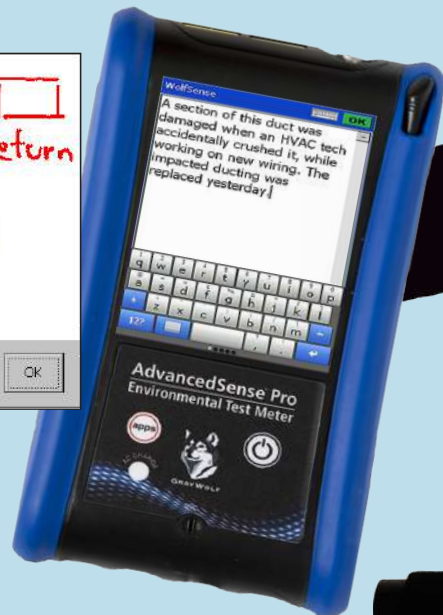- Optional auto-zeroing Differential Pressure & pitot tubes (AdvancedSense only)
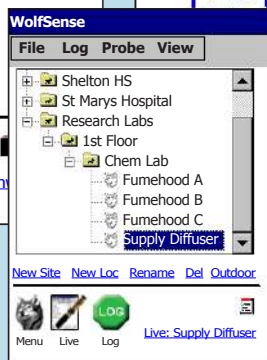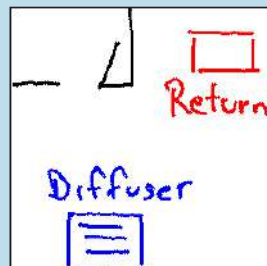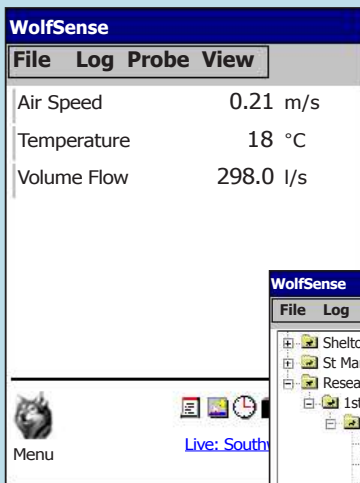- Extremely Easy-To-Use

Superior Technology for Enhanced Airspeed Testing

Connect probes to your choice of Platforms

Example Screens (AdvancedSense)

AdvancedSense BE Rugged, Multifunction Data-logger ▼

WolfSense

File	Log	Probe	View
Air Speed		0.21	m/s
Temperature		18	°C
Volume Flow		298.0	l/s

Menu   Live: Southw...

Return
Diffuser

WolfSense

File   Log   Probe   View

- Shelton HS
- St Marys Hospital
- Research Labs
  - 1st Floor
    - Chem Lab
      - Fumehood A
      - Fumehood B
      - Fumehood C
      - **Supply Diffuser**

New Site   New Loc   Rename   Del   Outdoor

Menu   Live   Log   Live: Supply Diffuser

A section of this duct was damaged when an HVAC tech accidentally crushed it, while working on new wiring. The impacted ducting was replaced yesterday!

AdvancedSense Pro Environmental Test Meter

Air Velocity and Volume Flow readings are displayed on the color tactile screen. An average can be simultaneously displayed; calculated from a choice of manually input readings or measurements auto-updated at one-second intervals.
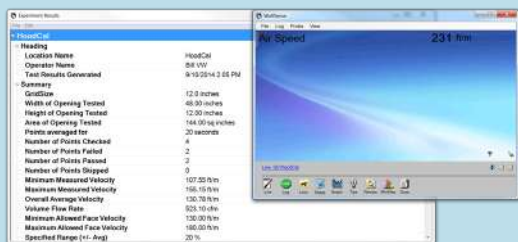
"Snapshot" measurements can be logged at the push of a button or a tap of the screen. Enter a description of the measurement location plus text notes, Word field forms, graphic files, audio memos, statistics, calibration data and more. Save time, improve efficiency and enhance documentation.

DuctCal®

GrayWolf's DuctCal software add-on module for accurate Volume Flow measurement calculates and displays measurement points, walking the user through a choice of Log-Tchebycheff or Equal Area duct traverses.

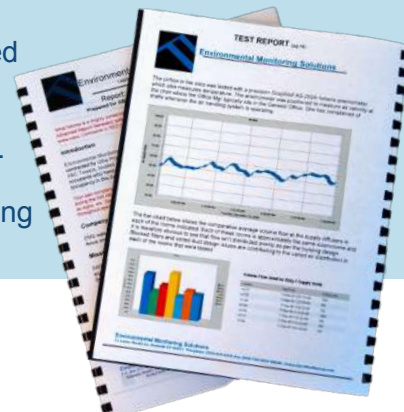Example ▶ Windows PC Screen (fumehood report and real time air velocity window)

Low cost **WIN 10 Tablets** are available from Gray-Wolf, with application appropriate accessories ▼
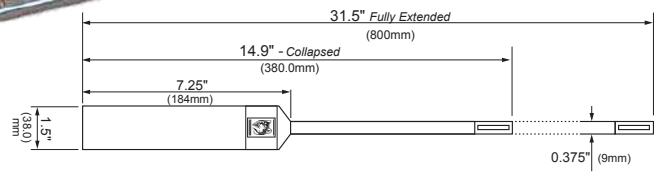
The DirectSense AIR is supplied with WolfSense® PC software for desktop data transfer, analysis and graph generation. Optional WolfSense ARG software automates the reporting process.
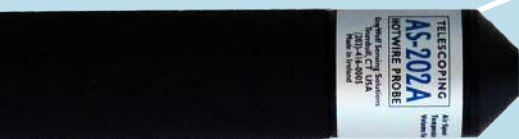
Or connect probes to **your own Windows PC**
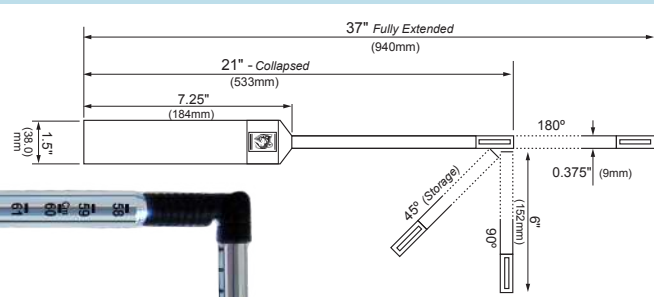
AIR VELOCITY VOLUME FLOW

AS-201

AS-202A

The AS-201 and AS-202A hotwire anemometer probes measure air velocity over a wide range, yet have exceptional low velocity accuracy and repeatability. Both probes telescope, while the AS-202A also has an articulating tip (excellent for reaching ceiling diffusers/filters and for fumehood face velocity balancing). The probes are ideally suited for applications ranging from IAQ (thermal comfort), to cleanrooms, to general HVAC testing.
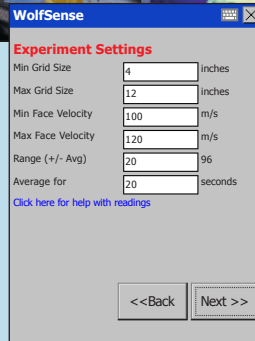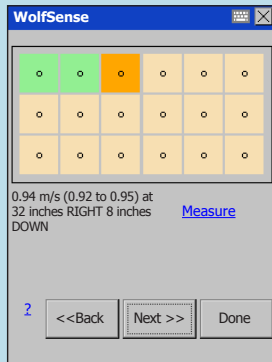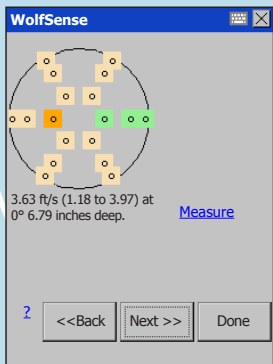
AS-201 dimensions:
- 31.5" Fully Extended (800mm)
- 14.9" - Collapsed (380.0mm)
- 7.25" (184mm)
- 1.5" (38.0) mm
- 0.375" (9mm)

AS-202A dimensions:
- 37" Fully Extended (940mm)
- 21" - Collapsed (533mm)
- 7.25" (184mm)
- 1.5" (38.0) mm
- 180°
- 0.375" (9mm)
- 45° (Storage)
- 90°
- 6" (152mm)

HoodCal®

Fumehood face velocity software guides the user step-by-step from air velocity sensor positioning on through to a detailed report that prints each measurement point and PASS/FAILs the test based on user selected criteria.

WolfSense

3.63 ft/s (1.18 to 3.97) at 0° 6.79 inches deep.

Measure

? | <<Back | Next >> | Done

WolfSense

0.94 m/s (0.92 to 0.95) at 32 inches RIGHT 8 inches DOWN

Measure

? | <<Back | Next >> | Done

WolfSense

Experiment Settings

Min Grid Size	4	inches
Max Grid Size	12	inches
Min Face Velocity	100	m/s
Max Face Velocity	120	m/s
Range (+/- Avg)	20	96
Average for	20	seconds

Click here for help with readings

<<Back | Next >>

PIT-504
Unique Pitot Tube with screw-in extensions 13" (33cm) up to 55" (140cm) standard, or up to 81" (205cm) with optional extensions

TC-301I/305S
K-type ºF / ºC probes for immersion/ surface & other apps

DirectSense II
%RH, Carbon Dioxide, TVOCs, CO, ºF/ºC and more (O_3, NH_3, NO_2, NO, H_2S or others). Up to 8 sensors in one probe (for IAQ and toxic gas applications).

PC-3016A
6-Channel Particulate Meter

Expand your measurement capabilities with additional parameters available from GrayWolf; and more are on their way!

GRAYWOLF
SENSING SOLUTIONS

GRAYWOLF
SENSING SOLUTIONS

ADVANCEDSENSE®
DIRECTSENSE® AIR

☑ Measure Smart   ☑ Report Efficiently

Air Velocity Meter

PCC-22AS Hard-shell carrying case for AdvancedSense or Tablet PCs ▶

SPECIFICATIONS: AS-201/AS-202A

Air Velocity (hotwire):	Range: 0–6,000 ft/min (0.00–30.00 m/s)

Accuracy: ±2% of reading or ±3 ft/min (0.015 m/s), whichever is greater

Temperature:	Range: 15° to 160°F (-10° to +70°C)
	Accuracy: ±2°F (1.1°C)

Stated temperature accuracy is in a minimum 50 ft/min (0.25 m/s) airflow. This probe has significantly reduced temperature accuracy in still air due to heat generated by the "hotwire".

Probe Dimensions AS-201:	31.5" (800mm) L extended
	14.9" (380mm) L collapsed
0.375" (9mm) diam. tip, 0.4375" (11mm) telescope base	
1.5" (38mm) diameter handle, 7.25" (185mm) L	
Probe Dimensions AS-202A:	37" (940mm) L extended
	21" (530mm) L collapsed
6" (150mm) L tip articulates to 180°, 90°, or 45°	
0.375" (9mm) diam. tip, 0.4375" (11mm) telescope base	
1.5" (38mm) diameter handle, 7.25" (185mm) L	
Weight (probe):	w/batteries 13 oz (375 gm)
Power (probe):	2 x AA cells; typical battery life 50 hrs.
Probes may be powered by the AdvancedSense or Tablet, bypassing internal batteries.	
PC Software Requirements:	Windows 7/8/10
	30MB hard disc (min.) space

GRAYWOLF SOFTWARE IS 21 CFR PART 11 COMPLIANT
SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT FURTHER NOTICE

- The DirectSense AIR TAB is a complete kit that includes an **MN-10** 10" tablet computer, AS-201 airspeed probe, WolfSense LAP application software, WolfSense PC data transfer/reporting software, PCC-MN-10 tablet pouch, PCC-22AS hardshell case and more.

  The AdvancedSense BE AIR Kit is the same as above, but includes an **AdvancedSense BE** meter, in place of the Tablet PC, and a **PCC-AS01** meter pouch in place of the **PCC-MN-10**.

- Alternative kits (with or without Mobile PC or AdvancedSense) can be ordered to meet your specific needs. Contact GrayWolf for details.

- All factory calibrations are performed with NIST traceable equipment. Certificates of traceability are available.

PIT-229MS standard pitot tube (operates w/optional **DP-702LH** ΔP sensor in AdvancedSense) ▼
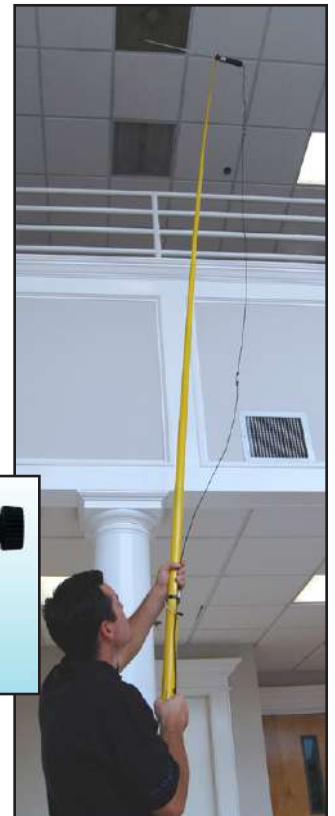

AS-202A on **ACC-TPD1** tripod with **ACC-TPD-AS** fitting ▼

ACC-TPD-AS ▲

AS-201 on **ACC-XT-ROD** extension rod, **ACC-EX4-L8** 4m (14 ft) extension cable and **ACC-TPD-AS** fitting ▶

▲ **PCC-AS01** pouch for AdvancedSense (comes w/belt loop and neck strap)

▲ Protective nylon pouch with hand strap for secure grasp of Tablet PCs. Also includes neck strap and built-in stand. Specify **PCC-MN-8** (8") or **PCC-MN-10** (10") tablet versions.

UK & Ireland Distributor

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