

# Harnessing the Power of Mobile Computing for Advanced Environmental Measurements

✓ Surveyed

✓ Documented

✓ Reported



# ADVANCEDSENSE™ AIR DIRECTSENSE®

Air Velocity Meters



**GRAYWOLF®**  
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Realtime (AdvancedSense/PPC)

File	Log	Probe	View
Air Speed			208 ft/m
Temperature			68 °F
Volume Flow			1021 cfm

Min/Max/Avg

Parameter	Average	Min/Max
Air Speed m/s	0.38	0.22
Temperature °C	20	20
Volume Flow m³/h	327.5	100
DP Pa	-3.5	-4.1

Realtime (Notebook)

File	Log	Probe	View
Air Speed			1.67 m/s
Temperature			24 °C
Volume Flow			150.3 m³/h



Audio Note

▲ Attach Photo, Text, Audio and other notes in the field

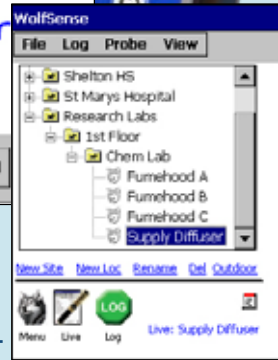
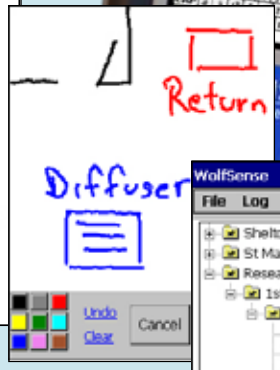
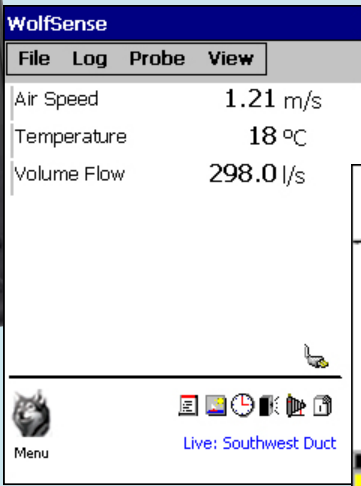
The AdvancedSense Air and DirectSense Air integrate precision hotwire sensor technology and GrayWolf's comprehensive software with the power and performance of mobile PC computing. Airspeed measurement has evolved to an advanced new level.

- 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 color display of measurements on tactile screen
- Versatile Averaging function
- Extremely easy to use
- 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)

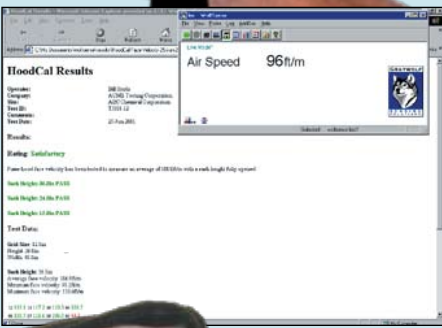
# Superior Technology for Enhanced Airspeed Testing

PH-12S WIN Mobile PocketPC

Example Screens



AdvancedSense Data-logger (shown with RH-AS2 %RH/temp probe)



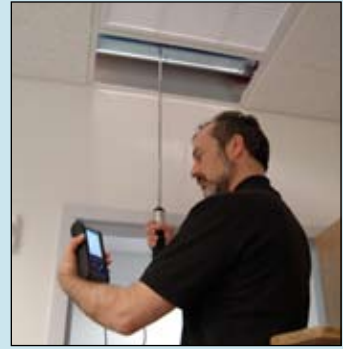
Example WIN 7 Screen

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.

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.

DuctCal®



GrayWolf's DuctCal software accurately calculates and displays measurements using the user through a choice of Equal Area duct traverses.

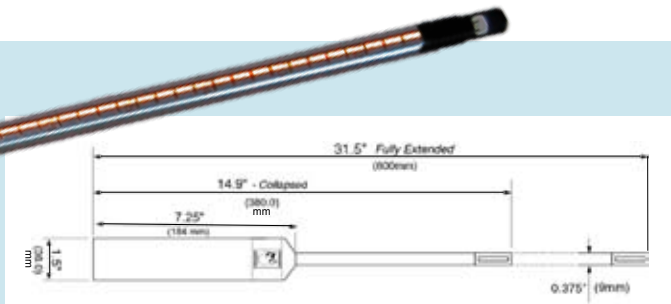
Low cost netbooks are available from GrayWolf or use your own



# AIR VELOCITY VOLUME FLOW



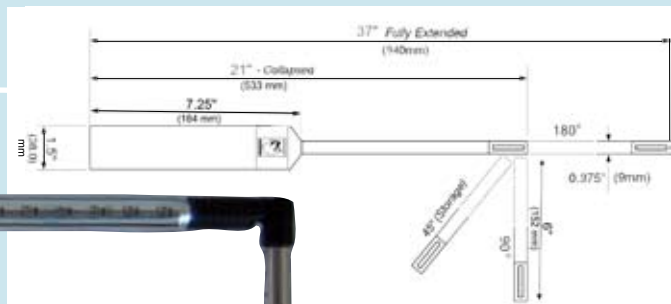
## AS-201



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.

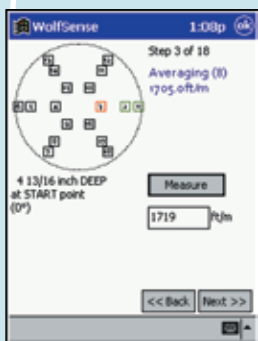
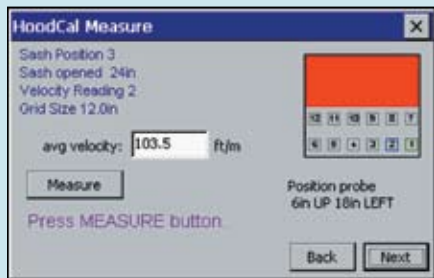


## AS-202A



# 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.



add-on module for measurement points, walk-through of Log-Tchebycheff or



## PIT-50-4

Pitot tube with screw-in extensions 13" (33 cm) up to 77" (195 cm) for AdvancedSense



## TC-301I/305S

K-type °F/°C probes for immersion/surface & other apps (AdvancedSense)

## IQ-610

%RH, Carbon Dioxide, TVOCs, CO, °F/°C and more (O<sub>3</sub>, NH<sub>3</sub>, H<sub>2</sub>S or others). Up to 6 sensors in one probe (for IAQ applications).



## GW-3016

6-Channel Particle Counter

GrayWolf offers optional parameters to expand your measurement capabilities





# ADVANCEDSENSE™ DIRECTSENSE® AIR

## Air Velocity Meter

SPECIFICATIONS: AS-201/AS-202A

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

Accuracy: +/- 3% rdg +/-3 ft/min (0.015 m/s)

**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" (940 mm) 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 30 hrs.

(Computer battery life varies by make and model)

**PC Software Req's:** WIN 2000/XP (w/.NET 2.0+ Installed), Vista,

WIN7 or higher

30MB hard disc (min.) space

GRAYWOLF SOFTWARE IS 21 CFR PART 11 COMPLIANT

ALL SPECIFICATIONS ARE TO SUBJECT TO CHANGE WITHOUT FURTHER NOTICE

- The DirectSense AIR PPC is a complete kit that includes a Windows Mobile Pocket PC computer, AS-201 Airspeed probe, WolfSense PPC application software, WolfSense PC desktop PC reporting software, PCC-PH01 Pocket PC belt case, PCC-22AS hardshell case and more.
- Alternative kits (with or without computer or AdvancedSense) can be ordered to meet your specific needs. Contact GrayWolf for details.
- Software and adapters are available to make your probe(s) compatible across multiple platforms (AdvancedSense, WolfPack, Pocket PCs, Tablet PCs, Netbooks, Laptops, etc.).
- All factory calibrations are performed with NIST traceable equipment. Certificates of traceability are optional.

MEASURE SMART

REPORT EFFICIENTLY

PCC-22AS Hard-shell carrying case (for AdvancedSense or PPCs; a larger case is available for netbooks) ▶



▼ PIT-229MS standard pitot tube



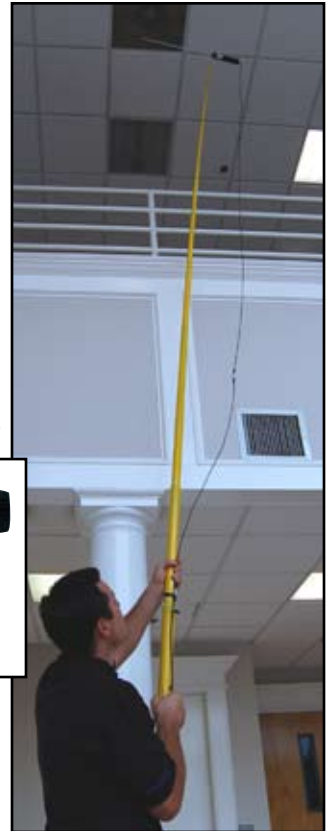
AS-202A on ACC-TPD1 tripod with ACC-TPD-AS fitting ▼



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)



▲ PCC-PH01 Pocket PC pouch (comes with belt clip and neck strap)



▲ PCC-MNHP3 soft Case for MN-HP3 Netbook (comes with neck strap)



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