



# AIRPRO™ AIR VELOCITY INSTRUMENTS

MOBILE APP, FEATURE SETS, VELOCITY METER, AND MEASUREMENT PROBES

AirPro™ Air Velocity Instruments are rugged, compact, configurable and highly accurate measurement devices featuring a Velocity Meter (AP500), Mobile Application Software (AP-MOBILE), and user-defined Measurement Probes (VT-S, VT-A, VTH-S, VTH-A and TH-S) and Feature Sets (APFS-B, APFS-A and APFS-P).

Measurements are taken via trusted thermohygrometer or themoanemometer technology, displayed locally at the meter and simultaneously transmitted, via Bluetooth®, to your mobile Android or iOS handheld device for use with AirPro Mobile Application Software. Instrument features are enabled remotely based on user preference.

#### **Applications**

- + HVAC testing and balancing
- + Clean room testing
- + Biological safety cabinet and laboratory fume hood testing
- + HVAC commissioning and troubleshooting
- + Ventilation evaluations
- + Face velocity measurements

#### **Features and Benefits**

- + Multiple plug and play probe configurations available
- + Stackable probe extensions allow for additional reach
- + High contrast display eases viewing in dimly lit areas
- + Best-in-class air velocity accuracy
- + Long life rechargeable Li-ion battery reduces cost of ownership
- + Calibration certificate included
- + True single-hand operation



### AIRPRO MOBILE (MODEL AP-MOBILE) APPLICATION SOFTWARE

The AirPro Mobile software supports both Android or iOS smart devices and is available in three levels of performance – Basic, Advanced and Professional.

#### Basic -

- + Auto-connect to the instrument
- + Remotely display instrument measurements
- + Set target values
- + View multiple measurements simultaneously
- + Supports multiple languages
- + Display measurements in Imperial or metric units

#### Advanced - Includes Basic Functionality Plus:

- + Connect up to 2 instruments for simultaneous, real-time display and data logging
- + Perform flow rate calculations based on user-input duct size
- + Calculate wet bulb and dewpoint temperatures (probe dependent)
- + Log measurements to smart device
- + Export data with comments and photos for report generation

### Professional - Includes Basic and Advanced Functionality Plus: —

- + Connect up to 6 instruments for simultaneous, real-time display and data logging
- + Built in duct traverse workflow supporting both Equal Area and log-Tchebycheff test methods
- + Supports an optional SD card for use in long- or short-term unattended data logging applications

Function	AirPro Feature Sets		
	Basic (APFS-B)	Advanced (APFS-A)	Professional (APFS-P)
Display Multiple Measurements Simultaneously	X	X	Х
Supports Multiple Languages	X	X	X
Configure for Imperial or Metric Units of Measurements	X	Х	Х
Volumetric Flow Rate Calculation		Х	X
Standard or Actual Velocity Calculation	X	Х	X
Max # of Instruments Connected to Airpro Mobile Simultaneously	1	2	6
Wet Bulb and Dewpoint Temperature Calculation (Probe Dependent)		Х	Х
Statistics		X	X
Data Logging		Х	Х
Export Data		Х	Х
Enable Utilization of Instruments SD Card Slot for Data Storage			Х
Graphing			X
Duct Traverse Application			Х
Online Access to Calibration Certificates			Х









## AIRPRO METER AND MEASUREMENT PROBES (MODELS AP500, VT-S, VT-A, VTH-S, VTH-A AND TH-S)

#### Model AP500 Includes:

Instrument, calibration certificate, quick start guide, universal AC/DC adapter, battery, service and registration cards.

#### **Thermoanemometers**

VT-S Air Velocity and Temperature - Straight Probe
 VT-A Air Velocity and Temperature - Articulated Probe
 VTH-S Air Velocity, Temperature, and Humidity - Straight Probe
 VTH-A Air Velocity, Temperature, and Humidity - Articulated Probe



#### Thermohygrometer

TH-S Temperature and Humidity - Straight Probe

#### Accessories

800529 AP500 Probe Extension - 12 in. (305mm), quantity (1) 800534 Small carrying case; capable of holding one meter, 1 probe,

3 extensions plus accessories.

800535 Large carrying case; capable of holding 2 meters, 2 probes,

 ${\tt 3}$  extensions plus accessories.

800530 External battery charger

634650002 Duct plug, 3/8" (9.5 mm) diameter - 1000 pieces 634650003 Duct plug, 3/8" (9.5 mm) diameter - 5000 pieces





#### **SPECIFICATIONS**

#### AIRPRO™ AIR VELOCITY INSTRUMENTS MODEL AP500, VT-S, VT-A, VTH-S, VTH-A, AND TH-S

#### MODEL AP500

#### **Barometric Pressure**

20.36 to 36.65 in. Hg (517.1 to 930.9 mm Hg) Range

±2% of reading Accuracy

**Instrument Temperature Range** 

Operating (Electronics) 40 to 113°F (5 to 45°C) -4 to 140°F (-20 to 60°C) Storage

Display interface

Organic light-emitting diode (OLED) 0.4 in. (10 mm) digit height

**External Meter Dimensions** 

2.1 in. x 8.5 in. x 1.6 in. (53 mm x 181 mm x 40 mm)

**Meter Weight with Batteries** 

0.5 lbs. (0.23 kg)

**Power Requirements** 

AirPro Li-ion battery 3500 mAh

AC Adapter (TSI part number 800531 only)

90 to 240 VAC, 50 to 60 Hz Input

Output 5 VDC. 2A

**Battery Life** 

8+ hours at 100 ft/min (0.5 m/s) and 77°F (25°C)

#### AIRPRO MEASUREMENT PROBES

#### Velocity (VT-S, VT-A, VTH-S, VTH-A)

0 to 6,000 ft/min (0 to 30 m/s) Range ±3% of reading or ±3 ft/min Accuracy<sup>1&2</sup> (±0.015 m/s), whichever is greater

Resolution 1 ft/min (0.01 m/s)

Temperature (VT-S, VT-A, VTH-S, VTH-A, TH-S)

14 to 150°F (-10 to 65°C) Range

Accuracy<sup>3</sup> ±0.5°F (±0.3°C) Resolution 0.1°F (0.1°C)

Relative Humidity (VTH-S, VTH-A, TH-S)

Range 5 to 95% RH Accuracy<sup>4</sup> ±3% RH 0.1% RH Range

Straight Probe Dimensions (VT-S, VTH-S, TH-S)

Probe length 12 in. (305 mm) Probe diameter (largest) 0.375in. (9.5 mm)

Articulating Probe Dimensions (VT-A, VTH-A)

Probe length 12 in. (305 mm) Probe diameter (largest) 0.375 in. (9.5 mm) Articulating section length 6.0 in (15.24 cm)

**Probe Extension Dimensions (800529)** 

Probe length 12 in. (305 mm) Probe diameter (largest) 0.375 in. (9.5 mm)

<sup>1</sup> Temperature compensated over an air temperature range of 40 to 150°F (5 to 65°C).

 $^{\rm 2}$  The accuracy statement begins at 30 ft/min through 6,000 ft/min (0.15 m/s through 30 m/s).

Accuracy with instrument case at 77°F (25°C), add uncertainty of 0.05°F/°F (0.03°C/°C) for change in instrument temperature.

<sup>4</sup> Accuracy with probe at 77°F (25°C). Add uncertainty of 0.1% RH/°F (0.2% RH/°C) for change in probe temperature. Includes 1% hysteresis

Specifications are subject to change without notice.

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