

# AirPro<sup>®</sup> Micromanometer Instruments

Mobile App, Feature Sets, and Micromanometer



AirPro<sup>®</sup> Micromanometer Instruments are rugged, compact, configurable and highly accurate measurement devices featuring a Micromanometer (AP800), Mobile Application Software, and Feature Sets (Basic, Advanced and Professional).

AirPro® Micromanometer Model AP800 measures static and differential pressures with seamless connection to smart devices, utilizing Bluetooth® Low Energy (BLE). Data is shown on an integrated display on the instrument while simultaneously being communicated wirelessly, in real-time, to the AirPro® Mobile Application Software running on your mobile Android<sup>™</sup> or iOS® handheld device. Instrument features are enabled remotely based on user preference and subscription level.

#### Applications

- HVAC commissioning and troubleshooting
- Testing and balancing
- Pitot tube duct traverses
- Static pressure measurements
- Differential pressure measurements

#### **Features and Benefits**

- Calculates velocity when used with a pitot tube
- Auto zeros pressure sensor upon instrument startup
- Barbed pressure ports to securely attach tubing
- High contrast display eases viewing in dimly lit areas
- Measure differential and static pressures from -15 to +15 in.  $\rm H_2O$  (-3735 to +3735 Pa)
- Long life rechargeable Li-ion battery reduces cost of ownership
- Calibration certificate included

## AirPro® Mobile Application Software

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

#### **Basic:**

- Free download from App Store and Google Play
- 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



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1791.45

14.00 x 16.00 in

ft<sup>3</sup>/min

8.94 @ 1152 @ 0.085

1637003

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Included

#### Advanced – Includes Basic Functionality Plus:

- Subscription-based feature set
- Connect up to 2 instruments for simultaneous, real-time display and data logging
- Perform flow rate calculations based on user-input duct size or K-factor
- 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:
- Subscription-based feature set
- 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		
		Advanced (1 Year/Long-Term)	Professional (1 Year/Long-Term)
Display Multiple Measurements Simultaneously	•	•	•
Supports Multiple Languages	•	-	-
Configure for Imperial or Metric Units of Measurements	•	•	•
Calculate Pitot Probe Velocity	•	-	•
Standard or Actual Velocity Calculation	-	-	-
Max # of Instruments Connected to AirPro Mobile Simultaneously	1	2	6
Volumetric Flow Rate Calculation (Kf or Pitot Probe)		•	•
Statistics		-	-
Data Logging		-	-
Export Data		-	-
Enable Utilization of Instruments SD Card Slot for Data Storage			•
Graphing			-
Duct Traverse Application			
Online Access to Calibration Certificates			-



## AirPro<sup>®</sup> Meter and Measurement Probes (Models AP500, VT-S, VT-A, VTH-S, VTH-A and TH-S)

#### Model AP800 Includes: —

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

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#### Carrying Case —

800534	Small carrying case; capable of holding 1 meter,
	1 probe, 3 extensions plus accessories
800535	Large carrying case; capable of holding 2 meters,
	2 probes, 3 extensions plus accessories

#### Static Pressure Probes and Tubing Kit -

800533 Static Pressure Probes and Tubing Kit; contains two static pressure probes and two 4 ft. (1.2 m) lengths of tubing

#### Pitot Probes -

634634000	Pitot probe (5/16" (8 mm) diameter) - 12" (30 cm)
634634001	Pitot probe (5/16" (8 mm) diameter) - 18" (46 cm)
634634002	Pitot probe (5/16" (8 mm) diameter) - 24" (61 cm)
634634003	Pitot probe (5/16" (8 mm) diameter) - 36" (91 cm)
634634005	Pitot probe (5/16" (8 mm) diameter) - 60" (152 cm)
634634004	Telescoping pitot probe - 8" to 38" (20 cm to 96 cm)

#### Miscellaneous -

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<sup>®</sup> Micromanometer Instruments Model AP800 and Accessories

#### **Static / Differential Pressure**

Range <sup>1</sup>	-15 to +15 in. $\rm H_{2}O$ (-28.0 to +28.0 mm Hg, -3735 to +3735 Pa)
Accuracy	$\pm$ 1% of reading $\pm$ 0.005 in. H <sub>2</sub> O ( $\pm$ 0.01 mm Hg, $\pm$ 1 Pa)
Resolution	0.001 in. H <sub>2</sub> O (0.1 Pa, 0.01 mm Hg)

#### Velocity (Pitot Probe)

Range <sup>2</sup>	250 to 15500 ft/min (1.27 to 78.7 m/s)
Accuracy <sup>3</sup>	±1.5% at 2000 ft/min (10.16 m/s)
Resolution	1 ft/min (0.1 m/s)

#### **Barometric Pressure (AP800)**

Range	20.36 to 36.65 in. Hg (517.1 to 930.9 mm Hg)
Accuracy	±2% of reading

#### Instrument Temperature Range

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

#### **Display interface**

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

#### **External Meter Dimensions**

2.1 in. x 7.1 in. x 1.6 in. (53 mm x 181 mm x 40 mm)

#### **Meter Weight**

Weight with batteries: 0.45 lbs (0.20 kg)

#### **Power Requirements**

AirPro Li-ion battery 3500 mAh AC Adapter (TSI part number 800531 only) Input 90 to 240 VAC, 50 to 60 Hz Output 5 VDC, 2A

#### **Battery Life**

32+ hours

 $^{\scriptscriptstyle 1}$  Overpressure range = 7 psi (190 in. H\_2O, 360 mmHg, 48 kPa).

 $^{\rm 2}$  Pressure velocity measurements are not recommended below 1,000 ft/min (5 m/s).

<sup>3</sup> Accuracy is a function of converting pressure to velocity. Conversion accuracy improves when actual pressure values increase. Specifications are subject to change without notice.

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USA	Tel: +1 800 874 2811	India	Tel: +91 80 67877200
UK	Tel: +44 149 4 459200	China	Tel: +86 10 8219 7688
France	Tel: +33 1 41 19 21 99	Singapore	Tel: +65 6595 6388
Germany	Tel: +49 241 523030		

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