

# VELOMETER® THERMAL ANEMOMETERS MODELS AVM410, AVM430, AND AVM440

## Model AVM410

The Model AVM410 is a solid choice for a digital Air Velocity Meter, without compromising accuracy or precision. Excellent for troubleshooting HVAC systems and conducting commissioning work.

## Models AVM430 and AVM440

The Model AVM430 and AVM440 are like having multiple meters for the price of one, yet they are simple to operate. Purchase instruments with a straight or articulated probe—all in one compact package.



Model AVM440

## Features and Benefits (Models AVM410, AVM430 and AVM440)

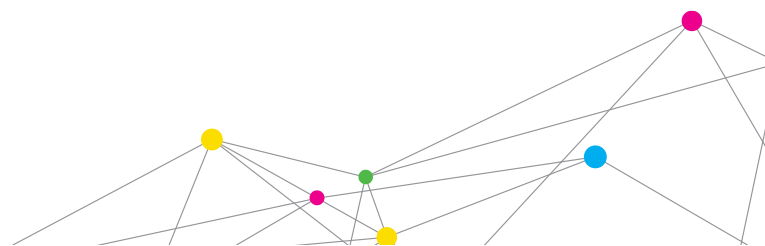
- + Accurate air velocity measurement
- + Large, easy to read display
- + Calibration certificate included

## Features and Benefits (Models AVM430 and AVM440)

- + Simultaneously measures temperature, velocity and flow
- + Displays up to three measurements simultaneously
- + Calculates volumetric flow, and actual/standard velocity
- + Articulated probe versions available
- + Data logging and LogDat2™ downloading software included
- + Measures humidity (AVM440), dewpoint and wet bulb temperature

## Applications

- + HVAC system performance
- + Commissioning
- + Plant maintenance
- + Critical environment certification
- + Duct traverses
- + Face velocity measurement



## SPECIFICATIONS

### VELOMETER® THERMAL ANEMOMETERS MODELS AVM410, AVM430 and AVM440

#### Velocity

|                                              |                                                                   |
|----------------------------------------------|-------------------------------------------------------------------|
| Range (AVM410)                               | 0 to 4,000 ft/min (0 to 20 m/s)                                   |
| Range (AVM430, AVM440)                       | 0 to 6,000 ft/min (0 to 30 m/s)                                   |
| Accuracy (AVM410) <sup>1&amp;2</sup>         | ±5% of reading or ±5 ft/min (±0.025 m/s),<br>whichever is greater |
| Accuracy (AVM430, AVM440) <sup>1&amp;2</sup> | ±3% of reading or ±3 ft/min (±0.015 m/s),<br>whichever is greater |
| Resolution                                   | 1 ft/min (0.01 m/s)                                               |

#### Duct Size (AVM430, AVM440)

|            |                                                                                   |
|------------|-----------------------------------------------------------------------------------|
| Dimensions | 1 to 250 inches in increments of 0.1 in.<br>(1 to 635 cm in increments of 0.1 cm) |
|------------|-----------------------------------------------------------------------------------|

#### Volumetric Flow Rate (AVM430, AVM440)

|       |                                                          |
|-------|----------------------------------------------------------|
| Range | Actual range is a function of velocity,<br>and duct size |
|-------|----------------------------------------------------------|

#### Temperature

|                        |                           |
|------------------------|---------------------------|
| Range (AVM410, AVM430) | 0 to 200°F (-18 to 93°C)  |
| Range (AVM440)         | 14 to 140°F (-10 to 60°C) |
| Accuracy <sup>3</sup>  | ±0.5°F (±0.3°C)           |
| Resolution             | 0.1°F (0.1°C)             |

#### Relative Humidity (AVM440 only)

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

#### Wet Bulb Temperature (AVM440 only)

|            |                         |
|------------|-------------------------|
| Range      | 40 to 140°F (5 to 60°C) |
| Resolution | 0.1°F (0.1°C)           |

#### Dew Point (AVM440 only)

|            |                          |
|------------|--------------------------|
| Range      | 5 to 120°F (-15 to 49°C) |
| Resolution | 0.1°F (0.1°C)            |

#### Instrument Temperature Range

|                           |                           |
|---------------------------|---------------------------|
| Operating (Electronics)   | 40 to 113°F (5 to 45°C)   |
| AVM410 Operating (Probe)  | 0 to 200°F (-18 to 93°C)  |
| AVM 430 Operating (Probe) | 0 to 200°F (-18 to 93°C)  |
| AVM440 Operating (Probe)  | 14 to 140°F (-10 to 60°C) |
| Storage                   | -4 to 140°F (-20 to 60°C) |

#### Data Storage Capabilities (AVM430, AVM440)

|       |                                  |
|-------|----------------------------------|
| Range | 12,700+ samples and 100 test IDs |
|-------|----------------------------------|

#### Logging Interval (AVM430, AVM440)

|                    |
|--------------------|
| 1 second to 1 hour |
|--------------------|

#### Time Constant (AVM430, AVM440)

|                 |
|-----------------|
| User selectable |
|-----------------|

#### External Meter Dimensions

|                                                         |
|---------------------------------------------------------|
| 3.3 in. x 7.0 in. x 1.8 in. (8.4 cm x 17.8 cm x 4.4 cm) |
|---------------------------------------------------------|

#### Meter Weight with Batteries

|                    |
|--------------------|
| 0.6 lbs. (0.27 kg) |
|--------------------|

#### Probe Dimensions

|                        |                    |
|------------------------|--------------------|
| Probe Length           | 40 in. (101.6 cm)  |
| Probe Diameter of Tip  | 0.28 in. (7.0 mm)  |
| Probe Diameter of Base | 0.51 in. (13.0 mm) |

#### Articulating Probe Dimensions

|                                  |                   |
|----------------------------------|-------------------|
| Articulating Section Length      | 7.8 in. (19.8 cm) |
| Diameter of Articulating Knuckle | 0.38 in. (9.7 mm) |

#### Power Requirements

Four AA-size batteries or AC adapter

|                                                      | AVM410   | AVM430,<br>AVM430-A           | AVM440,<br>AVM440-A           |
|------------------------------------------------------|----------|-------------------------------|-------------------------------|
| Velocity range 0 to 4,000 ft/min<br>(0 to 20.00 m/s) | +        |                               |                               |
| Velocity range 0 to 6,000 ft/min<br>(0 to 30.00 m/s) |          | +                             | +                             |
| Temperature                                          | +        | +                             | +                             |
| Flow                                                 |          | +                             | +                             |
| Humidity, wet bulb, dew point                        |          |                               | +                             |
| Probe                                                | Straight | Straight or<br>-A articulated | Straight or<br>-A articulated |
| Variable time constant                               |          | +                             | +                             |
| Manual data logging                                  |          | +                             | +                             |
| Auto save data logging                               |          |                               | +                             |
| Statistics                                           |          | +                             | +                             |
| Review data                                          |          | +                             | +                             |
| LogDat2 downloading software                         |          | +                             | +                             |
| Certificate of Calibration                           | +        | +                             | +                             |

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

<sup>2</sup> The accuracy statement begins at 30 ft/min through 4,000 ft/min (0.15 m/s through 20 m/s) for the Model AVM410, and 30 ft/min through 6,000 ft/min (0.15 m/s through 30 m/s) for Models AVM430 and AVM440.

<sup>3</sup> 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.

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Specifications subject to change without notice.

