

THERMAL ANEMOMETERS MODELS TA410, TA430 AND TA440

Model TA410

The Model TA410 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 TA430 and TA440

The Models TA430 and TA440 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 TA440

Features and Benefits

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

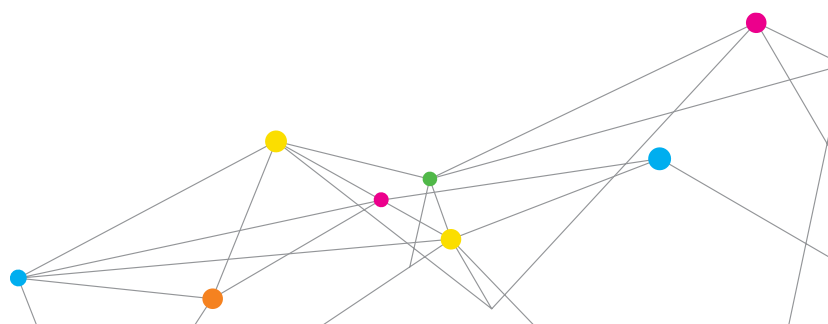
Additional Features and Benefits

(Models TA430 and TA440)

- + Simultaneously measures temperature and velocity
- + 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 (TA440), wet bulb, and dewpoint temperature

Applications

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



SPECIFICATIONS

THERMAL ANEMOMETERS MODELS TA410, TA430 AND TA440

Velocity

| | |
|--|--|
| Range (TA410) | 0 to 20 m/s (0 to 4,000 ft/min) |
| Range (TA430, TA440) | 0 to 30 m/s (0 to 6,000 ft/min) |
| Accuracy (TA410) ^{1&2} | ±5% of reading or ±0.025 m/s (±5 ft/min), whichever is greater |
| Accuracy (TA430, TA440) ^{1&2} | ±3% of reading or ±0.015 m/s (±3 ft/min), whichever is greater |
| Resolution | 0.01 m/s (1 ft/min) |

Duct Size (TA430, TA440)

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

Volumetric Flow Rate (TA430, TA440)

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

Temperature

| | |
|-----------------------|---------------------------|
| Range (TA410, TA430) | -18 to 93°C (0 to 200°F) |
| Range (TA440) | -10 to 60°C (14 to 140°F) |
| Accuracy ³ | ±0.3°C (±0.5°F) |
| Resolution | 0.1°C (0.1°F) |

Relative Humidity (TA440 only)

| | |
|-----------------------|-------------|
| Range | 5 to 95% RH |
| Accuracy ⁴ | ±3% RH |
| Resolution | 0.1% RH |

Wet Bulb Temperature (TA440 only)

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

Dew Point (TA440 only)

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

Instrument Temperature Range

| | |
|---|---------------------------|
| Operating (Electronics) | 5 to 45°C (40 to 113°F) |
| Model TA410, TA430 Operating (Probe) | -18 to 93°C (0 to 200°F) |
| Model TA440 Operating (Probe) | -10 to 60°C (14 to 140°F) |
| Storage | -20 to 60°C (-4 to 140°F) |

Data Storage Capabilities (TA430, TA440)

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

Logging Interval (TA430, TA440)

1 second to 1 hour

Specifications subject to change without notice.

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Time Constant (TA430, TA440)

User selectable

External Meter Dimensions

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

Meter Weight with Batteries

0.27 kg (0.6 lbs.)

Meter Probe Dimensions

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

Articulating Probe Dimensions

| | |
|----------------------------------|-------------------|
| Articulating Section Length | 19.7 cm (7.8 in.) |
| Diameter of Articulating Knuckle | 9.5 mm (0.38 in.) |

Power Requirements

Four AA-size batteries or AC adapter

| | TA410 | TA430, TA430-A | TA440, TA440-A |
|--|----------|----------------------------|----------------------------|
| Velocity range 0 to 20.00 m/s (0 to 4000 ft/min) | + | | |
| Velocity range 0 to 30.00 m/s (0 to 6000 ft/min) | | + | + |
| Temperature | + | + | + |
| Flow | | + | + |
| Humidity, wet bulb, dew point | | | + |
| Probe | Straight | Straight or -A articulated | Straight or -A articulated |
| Variable time constant | | + | + |
| Manual data logging | | + | + |
| Auto save data logging | | | + |
| Statistics | | + | + |
| Review data | | + | + |
| LogDat2 downloading software | | + | + |
| Free Certificate of Calibration | + | + | + |

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

² The accuracy statement begins at 30 ft/min through 4000 ft/min (0.15 m/s through 20 m/s) for the Model TA410, and 30 ft/min through 6,000 ft/min (0.15 m/s through 30 m/s) for Models TA430 and TA440.

³ Accuracy with instrument case at 25°C (77°F), add uncertainty of 0.03°C/°C (0.05°F/°F) for change in instrument temperature.

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