Thermal Dispersion Airflow Measurement

Quick Select

Ducts, Plenums, and Fans

Advantage III Gold Series

EBTRON a measurable difference!

GTx116-P+

Applications: Outside Air, Supply Air, Return Air, Exhaust Air

Guidelines: Measure up to 100 FT^2 area with 3-5% accuracy

- Analog AND Network Airflow & Temperature Outputs
- Transmitter with Display

Specification Download Link

GTx108-F/An, GT 108 F/SI & /DI

Applications: Supply or Return Fan Array, Single or Double Width Fans

Guidelines: Measure up to eight fan inlets

- Analog AND Network Airflow and Temperature Outputs
- Individual Fan Flow, Alarm OR Temperature Network outputs
- Transmitter with Display

Specification Download Link

Advantage III Hybrid Series

EBTRON a measurable difference!

HTx104-PE

Applications: Outside Air, Supply Air, Return Air, Exhaust Air

Guidelines: Measures up to 2 FT^2 area with 3-5% accuracy

- Analog OR Network Airflow & Temperature Outputs
- Transmitter with Display

Specification Download Link

HTx104-F/SI & /DI

Applications: Supply or Return Fans, Single or Double Width

Guidelines: Measure Single or Double Fan Inlets

- Analog OR Network Airflow and Temperature Outputs
- Transmitter with Display

Specification Download Link

AIR-IQ

EBTRON a measurable difference!

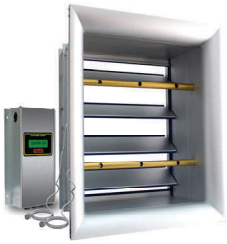
Damper Flow Station

Applications: Outside Air Intakes, Floor to Floor Airflow Measurement for Building Pressurization Returns

Guidelines: Measures up to 25 FT^2 Damper Area with 5% installed Accuracy

- Analog AND Network Airflow and Temperature Outputs
- Transmitter with Display

Specification Download Link



Air Velocity Measurement Technology

The following is an excerpt from 2013 ASHRAE Handbook —Fundamentals, Chapter 36, "*Measurement and Instrumentation*" Pg. 36.16

Table 4 Air Velocity Measurement

Measurement Means	Range, fpm	Precision	Limitations
Thermal dispersion (microcontroller–based) using thermistors to independently determine temperatures and velocities	20 to 10,000	±2 to 10% of reading	Cost increases with number of sensor assemblies in array. Not available with flanged frame. Honeycomb air straighteners not recommended by manufacturer. Accuracy verified only to -20° F. Not suitable for abrasive or high-temperature environments.
Pitot array, self-averaging differential pressure, typically using equalizing manifolds	600 to 10,000	±2 to >40% of reading	Performance depends heavily on quality and range of associated differential pressure transmitter. Very susceptible to measurement errors caused by duct placement and temperature changes. Nonlinear output (square-root function). Mathematical averaging errors likely because of sampling method. Must be kept clean to function properly. Must be set up and field calibrated to hand-held reference, or calibrated against nozzle standard.
Piezometer and piezoring variations, self-averaging differential pressure using equalizing manifolds	600 to 10,000	±5 to >40% of reading	Performance depends heavily on quality and range of required differential pressure transmitter. Very susceptible to measurement errors caused by inlet cone placement, inlet obstructions, and temperature changes. Nonlinear output (square-root function). Must be kept clean. Must be field calibrated to hand-held reference.

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