



Data Sheet

Building Management Systems • 207-370-6517 • www.powerwisesystems.com

Air Flow Meter:

This electronic low flow (ELF) RS-485 BACnet/Modbus thermal dispersion airflow measurement station provides precise airflow or temperature data in challenging variable air volume (VAV) and small duct applications. Flow velocities of less than 500 FPM are typical in VAV applications, while velocities of up to 3,000 FPM are typical in small duct applications. The ELF is factory calibrated from 0 to 3,000 FPM (0 to 15.24 m/s) in highly accurate wind tunnels to volumetric airflow standards. Equivalent volumetric flow measurement is available by simply specifying the duct free area in a network variable. The ELF provides accuracy of up to 3% of reading and reliable measurement over the entire flow range in VAV boxes and in duct applications up to 16 inches. The ELF features a calibrated probe and an integral enclosure and mounting bracket for simple field installation. A flow integration filter can be engaged to reduce the effects of transient wind flows if required. A convenient side accessible DIP-switch user interface allows for simple field set up and selection of RS-485 BACnet and Modbus options for interface with virtually any modern BAS.



Specifications

Range: 0 to 3,000 FPM [15.24m/s]
Typical Accuracy: ± 3% of reading; 0 to 3,000 FPM¹
Operating Temperature:

Transmitter: -20°F to 120°F [-28.9°C to 48.9°C]
Probe: 30°F to 160°F [-1.1°C to 71.1°C]

Operating Humidity Range: .0 to 99% non-condensing;
Transmitter must be protected from exposure to precipitation
Power Requirements: 24 VAC (22.8-26.4 VAC) at 8VA max.

Standard Size Ranges: 4 to 16 in (101.6 - 406.4 mm)
4 to 10 in [101.6 - 254 mm, in 1-inch (25.4 mm) increments;]
12 to 16 in [304.8 - 406.4 mm, in 2-inch (50.8 mm) increments]

Probe Material: Type 6063 aluminum alloy standard
Type 316 stainless steel optional

Probe Dimensions: 0.75 in [19.05 mm] diameter;
4 to 16 in [101.6 - 406.4 mm] length

Probes / Sensing Nodes: . . . 1 probe/2 sensing nodes maximum
Sensing Point Accuracy: . . . Airflow: ±2% of reading
Probe/Transmitter Cable: . . 3 ft. [0.91 m] plenum rated FEP cable standard
Flow Integration Filter: Integrates averages of multiple flow readings

¹ Accuracy for duct sizes up to 16 inches (406.4 mm). Other sizes available.



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Output to Host Controls

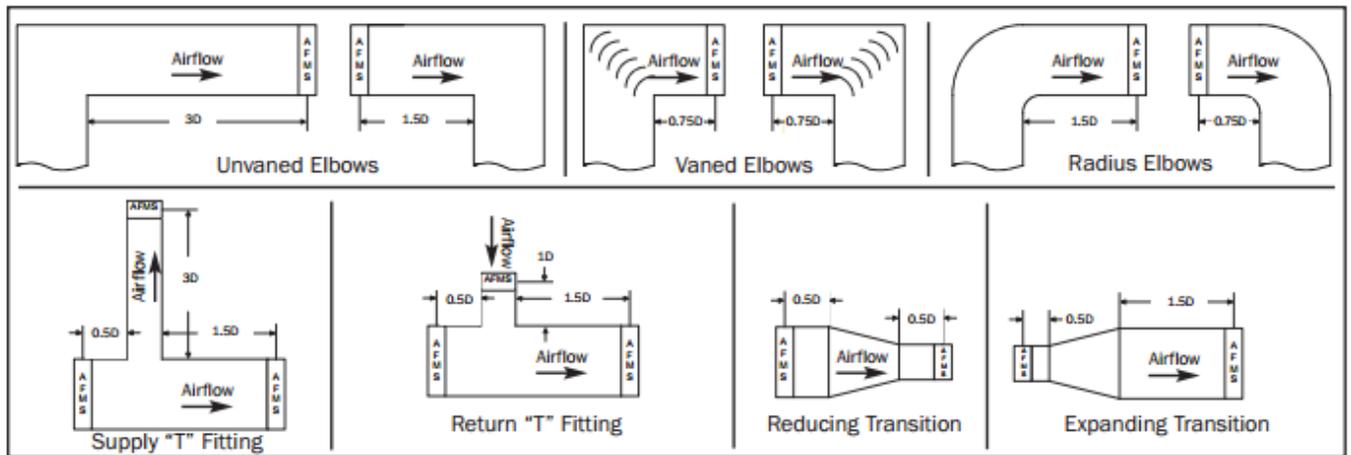
RS-485 BACnet® MS/TP or Modbus® RTU

Baud rate: 76,800, 38,400, 19,200, 9,600
Default BACnet® MS/TP: 76,800
Default Modbus® RTU: 19,200

Construction / Dimensions

Enclosure Material: Durable electronic housing with removable cover
Enclosure Rating: UL94-5VA
Enclosure Dimensions: 3.355 in square x 1.357 in [85.22 mm] square x 34.47 mm
Mounting Dimensions: Four 0.188 in [4.76 mm] dia holes on integral mounting bracket
Mounting Bracket Material: . Type 5052 aluminum alloy standard Type 316 stainless steel optional

Probe Dimensions



Minimum placement is indicated in multiples of duct diameter 'D'.

