

ULTRAPROBE AMPS

Airflow Measuring Probe Stations

Accurate,
Reliable,
Repeatable
Air Flow
Measurement

SPEC EP-0029-3



ULTRAPROBE AMPS

ULTRAPROBE AMPS

- Accurate and repeatable airflow measurement
- AMCA Certified for Airflow Station Performance
- Incorporates multiple measuring point, equal area averaging of flows resulting in improved accuracy and reliability
- Sensors are constructed utilizing aluminum probes with a hard anodized finish
- 12 inch flanged steel casing frames aluminum hexagon-celled straightening vane that eliminates turbulence and corrects flow direction enhancing the velocity profile
- Design eliminates nonessential hardware that can cause build up of dirt and foreign matter on the measuring assembly decreasing accuracy
- Available in Rectangular, Round or Oval configurations

Specifications For Standard Units

Accuracy: +/-2% to 6000 feet per minute

Temperature: Maximum operating 400°F

Pressure: Maximum operating, 6-in. w.c.

Pressure drop: Less than 0.075 in. w.c. at 2000 feet per minute with 3/8" cell

Flow straightening vanes:

3/8" aluminum hexagon cell

Maximum design flow: 6000 fpm

Casing: 16-gauge galvanized sheet metal

Length: 12-in. overall

Pitot/static sensors:

Aluminum with hard anodized finish

Process connections:

1/4-in. barb female

UT ULTRATECH
INDUSTRIES, INC.

www.hamlincos.com

ULTRAPROBE AMPS

Airflow Measuring Probe Stations

Accurate,
Reliable,
Repeatable
Air Flow
Measurement

Applications

ULTRATECH ULTRAPROBE Airflow Measuring Probe Stations provide accurate, repeatable measurement of air movement through ducts and piping. Lightweight, rugged construction coupled with ease of installation and economical pricing make these devices particularly applicable to the HVAC trade. Durable, quality construction ensures long term, trouble-free operation. ULTRAPROBE Airflow Measuring Probe Stations are compatible with manometers, differential pressure gauges, and differential pressure transmitters used for airflow indication and control.

Description

ULTRAPROBE Airflow Measuring Probe Stations are designed per standard duct traverse requirements. These probes are designed to match the balancer's industry standard Pitot tube, including the method of static pressure measurement and distance between the total pressure and static pressure sensing holes.

ULTRAPROBE Airflow Measuring Probe Stations use multiple averaging Pitots to determine total velocity and static pressure measurements. ULTRAPROBE's unique AMPS construction eliminates nonessential hardware that can cause buildup of dirt and foreign matter on the measuring assembly.

ULTRAPROBE Airflow Measuring Probe Stations are available in round, rectangular and oval configurations. All configurations feature a sensor assembly that allows for duct expansion and contraction. The 12-inch flanged steel casing has an aluminum, hexagon-celled straightening vane section that is mechanically fastened to the inlet. This eliminates turbulence and corrects flow direction, thereby improving the velocity profile.

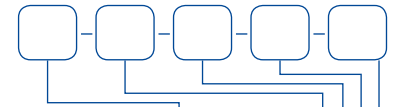
Various casing designs are available, as are most types of proprietary duct connecting systems. Contact ULTRATECH about these options

Suggested Specifications

Airflow measuring stations shall be of the multiple averaging Pitot/static sensor type, with sensors distributed for equal-area averaging of flows. They shall be of unitary (spool-piece) construction, of not less than 16-gauge sheet metal with flanged duct connections. Flow-straightening vanes shall be incorporated into the structure. Internal Pitot/static sensors shall be constructed of aluminum with hard anodized finish. Instrument connections shall be 1/4" barb Female. Mounting hardware shall not penetrate the sensor assembly.

The airflow measuring probe stations shall be ULTRAPROBE AMPS, as manufactured by ULTRATECH INDUSTRIES, INC., Garner, NC , U.S.A.

ULTRAPROBE AMPS Ordering Information



Casing Design

- 3 – Rectangular with no flanges
- 4 – Flat oval with no flanges
- 5 – Round with no flanges
- 6 – Rectangular with angle flanges
- 7 – Flat oval with angle flanges
- 8 – Round with angle flanges
- 9 – Rectangular with sheet metal flanges

Materials

- 1 – Standard – 16-ga. galv. Casing, aluminum straightening vanes, aluminum probes
- 3 – Stainless steel casing
- 4 – Stainless steel straightening vanes
- 6 – Stainless steel casing & straightening vanes
- 9 – Coated (specify)
- Z - Special

Straightening Vane Design

- 1 – Standard-3/8" straightening vanes
- 2 – 3/4" straightening vanes (products approx. 50% of specified pressure drop)
- Z - Special

Dimensions

long side x short side or diameter

Options

- B – Bolt holes in flanges (specify)
- C – Special instrument connections (specify)
- D – Damper with actuator (specify)
- H – Above standard process air pressure (specify)
- W – All welded construction
- Z - Special



Ultratech Industries certifies that the ULTRAPROBE AMPS Airflow Measuring Probe Station shown herein is licensed to bear the AMCA Certified Ratings Seal-Airflow Measurement Station Performance. The ratings shown

are based on tests and procedures performed in accordance with AMCA Publication 611 and comply with the requirements of the AMCA Certified Ratings Program.

Performance ratings include the effect of birdscreen plate.

Test Results-AMPS

AMP (CFM)	REF (CFM)	REF (FPM)	Accuracy (%)	Pressure Drop
38520	38892	4321	-0.96	0.314
36046	36468	4052	-1.16	0.266
30501	30785	3421	-0.92	0.208
23645	23846	2650	-0.84	0.13
16955	16998	1889	-0.25	0.075
6471	6385	709	1.35	0.018

Test Data

Model: AMPS

Type: Differential Pressure

Effective Area: 8.40 Square Feet

Conversion Formula: (CFM/Effective Area/4005)²

Size & Shape Tested: 36" x 36" Rectangular

Applicable Sizes Rated: Rectangular stations with cross-sectional areas between 4.5 and 18.0 square feet.

Test Setup: AMCA Standard 610, Figure 1

December 2015