

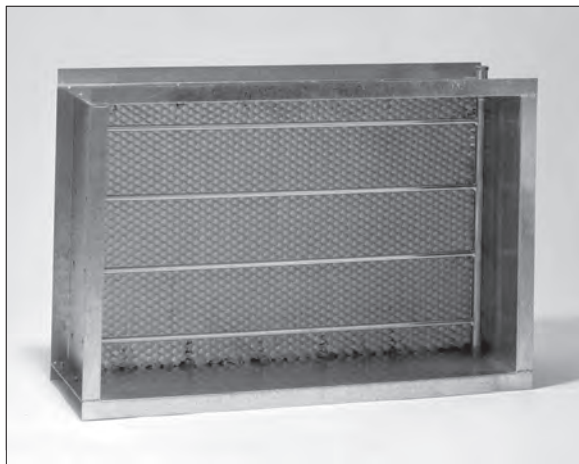


# ULTRAC PMS

## *Pressure Measuring Stations*

### APPLICATIONS

ULTRATECH ULTRAC Pressure Measuring Stations (PMS) provide accurate, repeatable measurement of the average static pressure in ducts and piping. These devices are particularly applicable to the HVAC trade because of their lightweight, rugged construction; ease of installation; and economical pricing. Durable, quality construction ensures long-term, trouble-free operation.

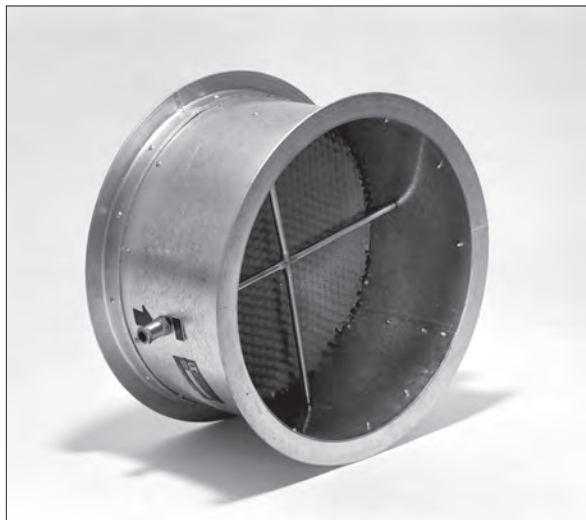


ULTRAC PMS 911

When used for controlling the supply fan, these ULTRAC stations ensure constant static pressure in variable air volume systems. They are compatible with manometers, differential pressure gauges, and differential pressure transmitters used for pressure indication and control.

### DESCRIPTION

ULTRAC Pressure Measuring Stations use multiple averaging statics to determine static pressure measurements. The static sensors are placed across the flow stream according to industry standards for equal-area averaging (the standard Pitot traverse). ULTRAC's simplified PMS construction eliminates non-essential hardware that can cause build-up of dirt and foreign matter on the measuring assembly.



ULTRAC PMS 811

ULTRAC Pressure Measurement Stations are available in round, rectangular and oval configurations. All configurations feature a rigid 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 and sensor designs are available, as are most types of proprietary duct connecting systems. Please contact ULTRATECH about these options.

## SUGGESTED SPECIFICATIONS

Pressure measuring stations shall be of the multiple averaging static pressure sensor type, with all static pressure sensors distributed for equal-area averaging of pressure. They shall be of unitary (spool-piece) construction, of not less than 16-gauge sheet steel with flanged duct connections. Flow-straightening vanes shall be incorporated into the structure. Internal static sensors shall be constructed of copper to ASTM B88 standards. Instrument connections shall be 1/2" NPT Female. Mounting hardware shall not penetrate the sensor assembly.

The pressure measuring stations shall be ULTRAC PMS, as manufactured by ULTRATECH INDUSTRIES, INC., Garner, NC, U.S.A.

### SPECIFICATIONS FOR STANDARD UNITS

ACCURACY: +/-1% to 6000 feet per minute  
TEMPERATURE: Maximum operating 400°F  
PRESSURE: Maximum operating, 6-in. w.c.  
PRESSURE DROP: Less than 0.07 in. w.c.

at 2000 feet per minute with 3/4" cell  
FLOW STRENGTHENING VANES: 3/4"  
aluminum hexagon cell

MAXIMUM DESIGN FLOW: 6000 ft./min.

CASING: 16-gauge galvanized sheet metal  
Length: 12-in. overall

PITOT AND STATIC SENSORS: rigid copper,  
hard drawn, to ANSI H 23.1 and ASTM B88  
standards

INTERNAL FITTINGS: copper, to ANSI  
B16.22 standards

PROCESS CONNECTIONS: 1/2-in. NPT  
Female

## ORDERING INFORMATION

ULTRAC PMS -		-	x	(-	)
<b>CASING DESIGN</b>					
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					
Z - Special					
<b>MATERIALS</b>					
1 - Standard - 16-ga. galv. casing, aluminum straightening vanes, copper probes					
2 - All stainless steel					
3 - Stainless steel casing					
4 - Stainless steel straightening vanes					
5 - Stainless steel probes					
6 - Stainless steel casing & straightening vanes					
7 - Stainless steel casing & probes					
8 - Stainless steel straightening vanes & probes					
9 - Coated (specify)					
Z - Special					
<b>PROBE/STRAIGHTENING VANE DESIGN</b>					
1 - Standard-3/4" straightening vanes, multiple static probes on cylinder surface					
2 - 3/8" straightening vanes (produces approx. twice specified pressure drop)					
3 - Single-point bullet-nosed static probe					
4 - Multiple bullet-nose static probes					
5 - 2 & 3 above					
6 - 2 & 4 above					
Z - Special					
<b>DIMENSIONS:</b> long side x short side or diameter					
<b>OPTIONS</b>					
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					

NOTE: Materials and design are standard unless noted otherwise. For special options, please contact ULTRATECH. Standard stainless steel is type 304. For other alloy, please specify.