



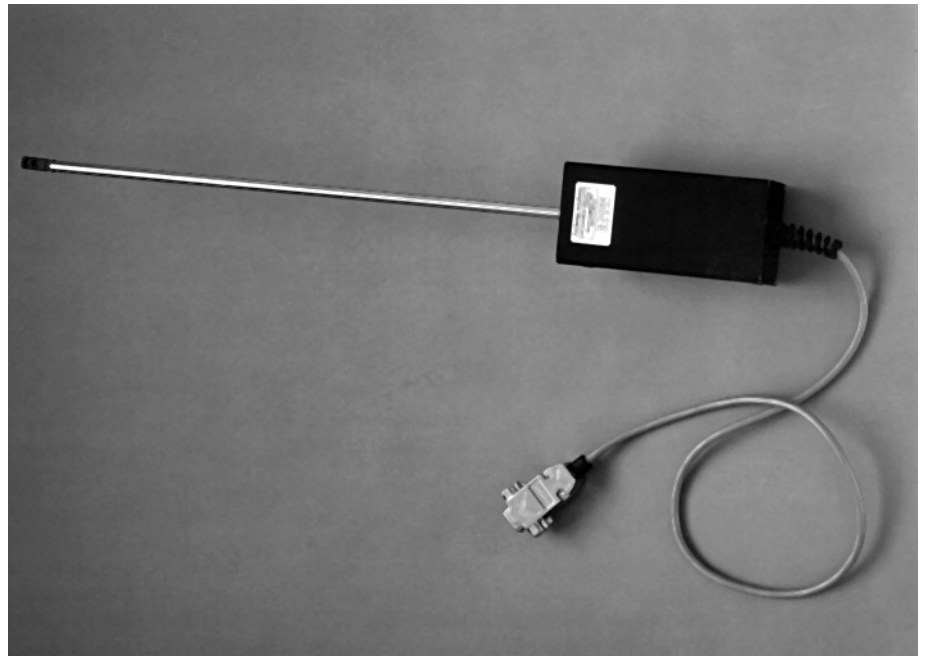
AVS Series

Air Velocity Sensors

Universal Series

Features

- Measures airflow directly
- Linear output
- Ultra-sensitive to low velocity
- Rugged
- Cost-effective
- Bi-directional option available
- Easy to use
- Choice of outputs, including 0-5V, 0-10V, 4-20mA
- CE approved



The new AVS Universal Series by Cambridge AccuSense, Inc. are thermistor-based transducers specially designed to obtain direct measurements of ultra-low air velocities, covering a range that starts as low as 0-100 fpm full scale (0-.5m/s), and reaching up to 0-1000 fpm (0-5 m/s); the output is linear with velocity.

With a standard response time of approximately 100 milliseconds, these new transducers feature accuracy of $\pm 3\%$ of full scale at room temperature, and eliminate the need to convert differential pressure readings in order to obtain an equivalent airflow measurement.

Individually calibrated in Cambridge AccuSense's NIST traceable wind tunnels, the rugged AVS Universal

Series is also offered in a bi-directional version that provides a positive or negative reading, depending on the direction of the airflow. The large thermistor signal ensures little drift, improved stability and better sensitivity at low velocities than traditional measurement methods. The unit is powered by 12-24VDC; output choices include 0-5V, 0-10V or 4-20 mA.

Applications for this new technology include monitoring airflow at HEPA filters to control fans and blowers, and to monitor critical processes in cleanrooms such as mini-environments. Additional uses include measuring airflow in fumehoods, biosafety cabinets, wind tunnels, and HVAC duct work. The AVS Universal Series provides a cost-effective and efficient alternative to traditional methods.

Specifications

Model	Minimum	Nominal	Maximum
12D	10		16 VDC
24D	12		24 VDC
Supply Current	50 mA		
Operating Temperature	-10° to 70°C		
Storage Temperature	-40° to 100°C		
Accuracy from 15° to 35°C above 30 fpm	$\pm 5\%$ of full scale $\pm 3\%$ of full scale at 21°C		
Accuracy below 30 fpm	± 10 fpm		
Repeatability at 21°C	$\pm 1\%$ full scale		
Response Time	100 ms standard		
Output Resolution	256 steps		
Warm-Up Time	3 minutes maximum		
Current Loop Load	0-200 ohms		
Humidity (non-condensing)	10% to 90% RH		
Cable	Shielded cable; 24 inches long		
DB9 Connector Configuration	1=Supply 2=Output 6=Return (grd)		
Case	Black Anodized Aluminum		
Weight	1 lb. maximum		

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Part Numbering Scheme

AVS	XX	XXX	X	X	X	X	X
AIR VELOCITY SENSOR	SERIES	SUPPLY VOLTAGE	CASE	VELOCITY RANGE (See Below)	OUTPUT	WAND	CONNECTOR OPTIONS
	10 = Non-Directional Sensor 11 = Bi-Directional Sensor	12D = 10-16 VDC 24D = 12-24 VDC	2 = Universal Package	B = 100 fpm C = 150 fpm D = 200 fpm F = 500 fpm H = 1000 fpm J = 0.5 m/s L = 1.0 m/s N = 2.5 m/s P = 5 m/s Other Ranges Available Upon Request VELOCITY RANGES Non-Directional – Choose 1 letter for ending velocity range: e.g., B = 100 fpm. Overall velocity range is 0 to 100 fpm. Bi-Directional – Choose 1 letter for the ending velocity, which will represent both the negative and positive velocity (e.g., an AVS with the letter D has a velocity range of -200 to +200 fpm).		0 (12.5 inch stainless steel rod)	4 = Female DB9



Accuracy of the bi-directional AVS begins from the bottom of the negative range to the top of the positive range (e.g. -200 to +200 calibration's full scale is 400 fpm.)



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