



CAMBRIDGE ACCUSENSE, INC.

# AirGrid

for testing HEPA filters  
and HVAC Systems



## Mobile Multipoint Evaluation

The Cambridge AccuSense AirGrid is a unique, flexible hardware tool, designed to enhance the performance and efficiency of your Quattro Flow Air Velocity Analyzer.

- Improves accuracy – measures airflow directly with four individual sensors instead of averaging multiple readings from a pitot tube.
- Saves time – Internal firmware stores 4 or 8 individual readings for many hundreds of filters.
- Increases efficiency – unique design allows measurements in awkward locations such as over conduits and around cleanroom equipment
- Eliminates risk of contamination – special laser feature positions the sensors 6 inches away from the filter. There is no need to physically touch the filter and risk contamination.
- Traditional AccuSense reliability – the AirGrid automatically compensates for altitude and density variations.
- Reduces human error potential – special firmware automatically calculates average velocity and volumetric flow.
- User-friendly operation – readings are entered simply by pushing a button on the handle.

### Direct. Fast. Easy.

A powerful accessory to your Quattro Flow Air Velocity Analyzer, the AirGrid takes four individual point readings simultaneously and computes the average and volumetric flow, all in real-time. The results are then stored in memory until deleted by user – there is no need to interrupt the operation in order to store measurements.

The AirGrid has an internal program that labels the data for easy recall and use. Individual as well as average readings for different cleanrooms, different HEPA filters, even different zones, can thus be measured, labeled and retrieved later. Profiles can be efficiently obtained and a data base created. Data can be downloaded to a PC or printed. Optional AccuTrac software allows the filter data to be downloaded in an Excel™ compatible spreadsheet.

As is the case with all Cambridge AccuSense airflow instrumentation, the sensors are fully interchangeable, allowing for easy field maintenance and uninterrupted operation.

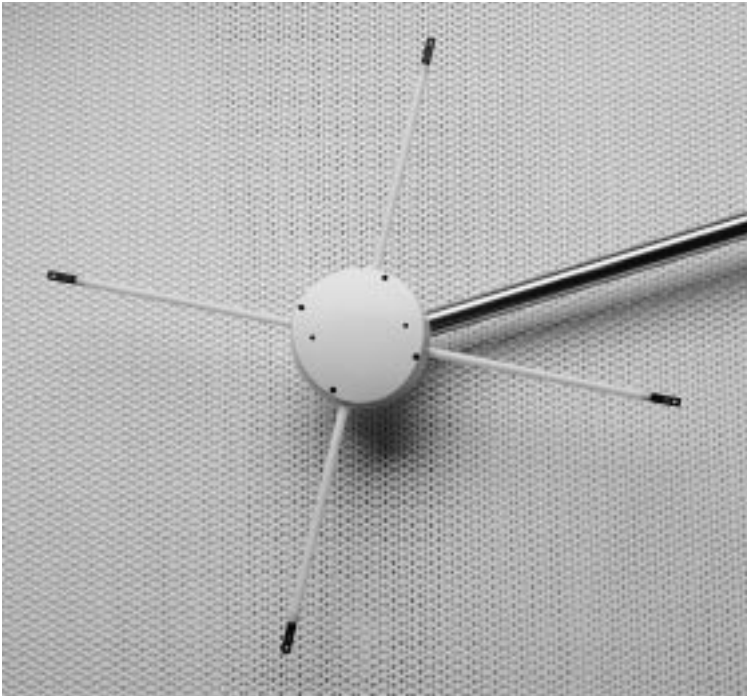
*The AirGrid is especially valuable for increasing efficiency, reliability and accuracy of multipoint airflow measurement in cleanrooms.*



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## Specifications



When measuring laminar flow, the Cambridge AccuSense AirGrid provides a unique multipoint, real-time advantage.

### AirGrid Specifications

AG-100, 30-150 fpm (0.15 to 0.75 m/s)

- $\pm 3\%$  of reading,  $\pm 4$  fpm, from 15-30 C (60 F-85 F)

AG-200, 150-1000 fpm (0.75 to 5.0 m/s)

- $\pm 5\%$  of reading or  $\pm 5$  fpm, whichever is greater, from 15-30°C (60°F-85°F)

### AirGrid Components

Quattro Flow Velocity Analyzer

AG-100 (30-150 fpm) or

AG-200 (150-1000 fpm) airflow sensors

Air Grid Pole

Filter Testing Firmware

Optional AccuTrac spreadsheet & graphing software



### Sample report from the Cambridge AccuSense AirGrid to AccuTrac

AccuSense AirGridData	Room: cleanroom	Location: shirley												
Label: accusense	Date: 7/22/1999													
Zone:	Filter:	time	Pos1	Pos2	Pos3	Pos4	Pos5	Pos6	Pos7	Pos8	Average	Average	Flow Vol:	
		hh:mm:ss	AF S1	AF S2	AF S3	AF S4	AF S1	AF S2	AF S3	AF S4	fpm	°C	CFM	
1	1	0:02:12	27	127	300	900	54	154	327	927	352.0	21.5	2816	
1	2	1:02:12	54	138	2163	43	81	165	2190	70	613.0	21.5	4904	
1	3	2:02:12	67	1489	445	5	94	1516	472	32	515.0	21.5	4120	
1	4	3:02:12	81	327	766	77	108	354	793	104	326.3	21.5	2610	
1	5	4:02:12	27	127	300	900	54	154	327	927	352.0	22.5	2816	
1	6	5:02:12	54	138	2163	43	81	165	2190	70	613.0	23.5	4904	
2	1	6:02:12	67	1489	445	5	94	1516	472	32	515.0	24.5	4120	
2	2	7:02:12	81	327	766	77	108	354	793	104	326.3	25.5	2610	
2	3	8:02:12	27	127	300	900	54	154	327	927	352.0	26.5	2816	
2	4	9:02:12	54	138	2163	43	81	165	2190	70	613.0	27.5	4904	
2	5	10:02:12	67	1489	445	5	94	1516	472	32	515.0	28.5	4120	
2	6	11:02:12	81	327	766	77	108	354	793	104	326.3	29.5	2610	
2	7	12:02:12	27	127	300	900	54	154	327	927	352.0	30.5	2816	
3	1	13:02:12	27	127	300	900	54	154	327	927	352.0	31.5	2816	
3	2	14:02:12	27	127	300	900	54	154	327	927	352.0	32.5	2816	
3	3	15:02:12	27	127	300	900	54	154	327	927	352.0	33.5	2816	
3	4	16:02:12	27	127	300	900	54	154	327	927	352.0	34.5	2816	
3	5	17:02:12	27	127	300	900	54	154	327	927	352.0	35.5	2816	
4	1	18:02:12	27	127	300	900	54	154	327	927	352.0	36.5	2816	
4	2	19:02:12	27	127	300	900	54	154	327	927	352.0	37.5	2816	
4	3	20:02:12	27	127	300	900	54	154	327	927	352.0	38.5	2816	



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