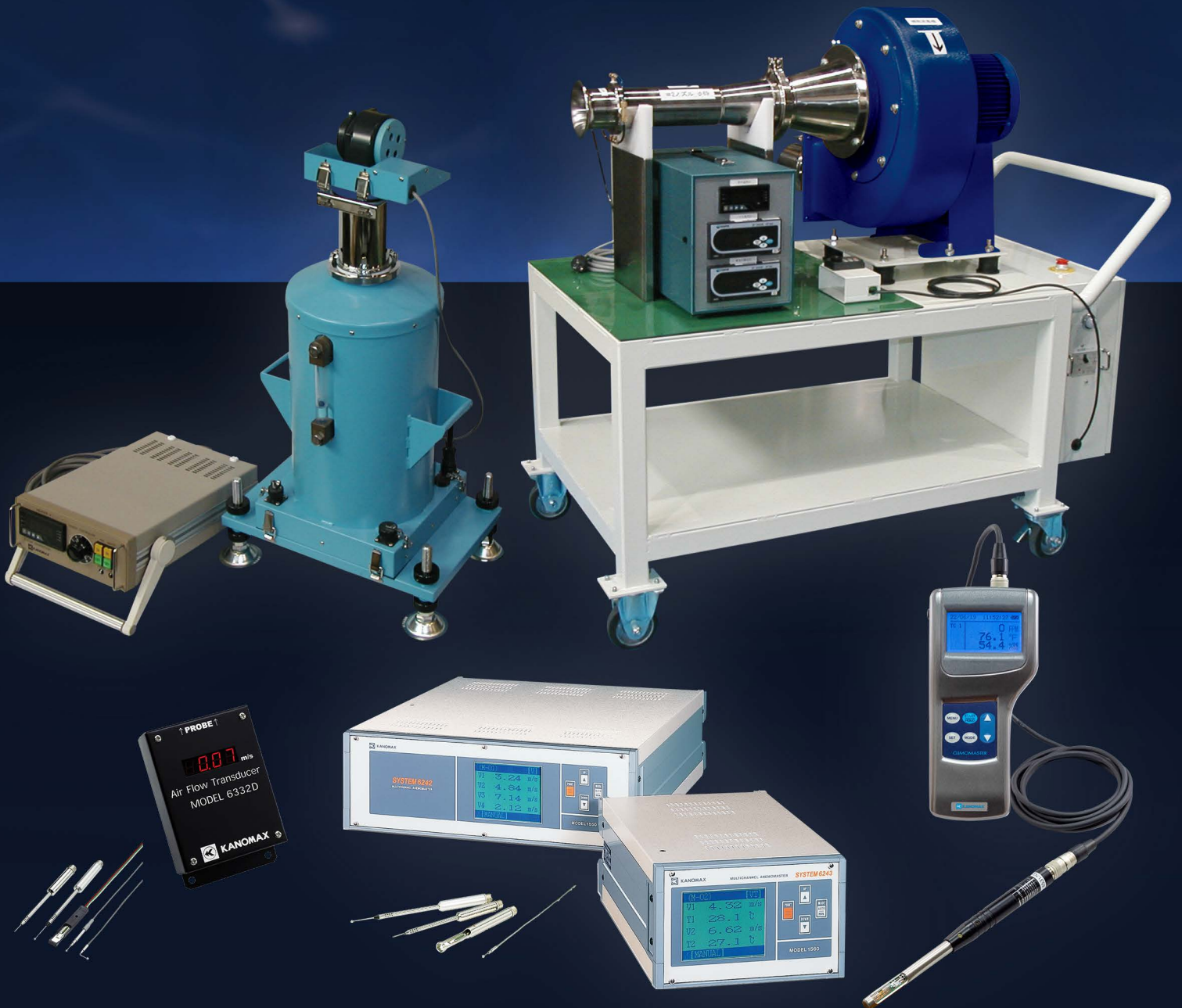




KANOMAX
The Ultimate Measurements

AUTOMOTIVE TESTING INSTRUMENTS



Ultimate Solutions for Automotive Testing

The highest quality of engineering has been expected in the automotive industry for quite some time. The pressure is on OEMs and tier suppliers to differentiate themselves from the competition by offering the highest standards of quality. Precision instrumentation helps designers and test engineers ensure that stringent quality specs are met.

Aerodynamics and Vehicle Airflow Measurement

Vehicle aerodynamics may be optimized by measuring the airflow around the entire vehicle. Through aerodynamic optimization, vehicle efficiency may be realized while improving performance and speed. Airflow measurements are taken at points around the entire vehicle including the: front grill, hood, quarter-panels, side mirrors, wheel-wells, doors/door handles, roof, and trunk/ rear end. Our anemometry probes can accurately measure air velocity down to one foot per minute (FPM).



HVAC System and Interior Cabin Comfort Measurement

A relatively simple concept – make sure that the air conditioning unit is cooling the interior cabin down quickly and efficiently, and that the heater is warming up the cabin in the same way. The air that the HVAC unit is pushing out from the ducts and vents is measured for velocity and temperature. This way occupants will always enjoy balanced cooling in the summer and heating in the winter.

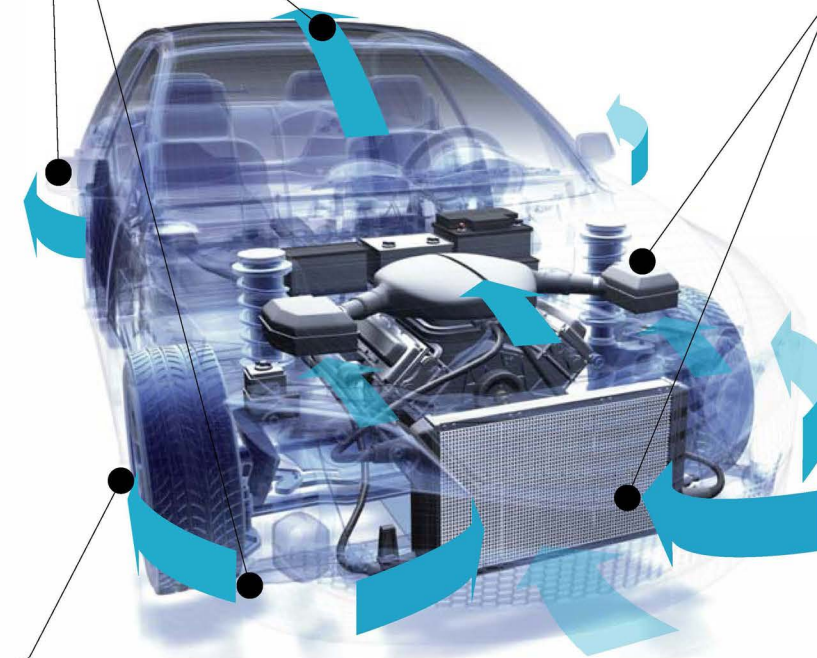
Aerodynamics and Vehicle Airflow Measurement

Aerodynamics Testing

In many cases a car's aerodynamics makes or breaks a customer purchase. It affects a car's performance, visual aesthetic, and fuel efficiency. With Kanomax Omni-Directional Air Velocity Probes you can simply determine your aerodynamics test points, setup probes at those points, and then leave all of the measuring and data logging to our Multi-Channel Anemometers.



Multi-point Anemometer & Probes



Engine Room Airflow Measurement

Cooling efficiencies of engine heat may be controlled by airflow management in the engine room. Efficient control helps the durabilities of both the engine itself and components placed around the engine. In addition, thermal impacts of electrical parts are considerable, therefore, heat from the electrical components needs to be measured. The Kanomax High Temperature Anemometer measures air velocity and temperature up to 932°F (500°C), making it uniquely suited to this type of measurement.



High Temperature Anemometer

Tire and Brake Heat Dissipation Testing

Controlling aerodynamics around the tire improves fuel-economy and safety by effectively draining water and dissipating heat. In addition, measuring airflow around the brakes helps to evaluate cooling efficiencies of the brake. Assembly multi-point air velocity measurements with miniature probes are an ideal solution for advanced performance testing.



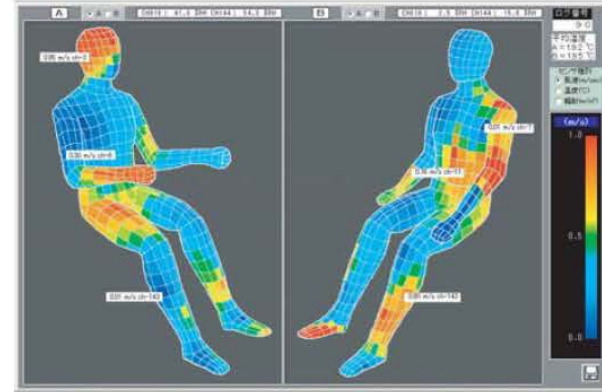
4-channel Anemometer



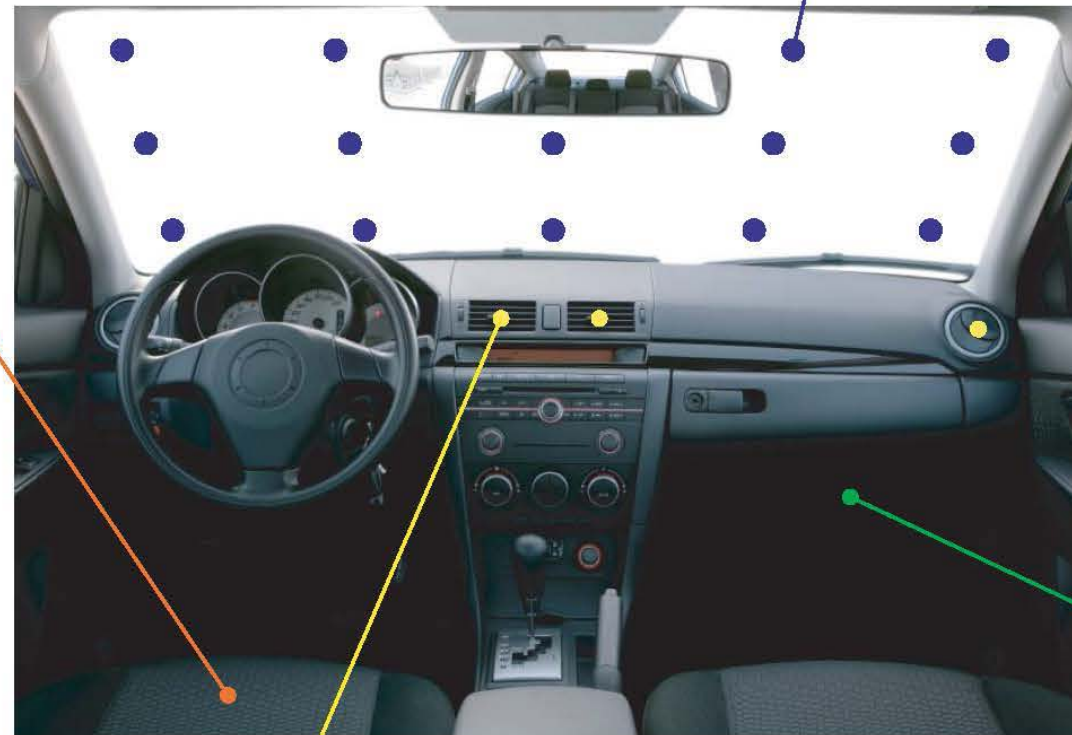
HVAC System and Interior Cabin Comfort Measurement



Amenity Manikin



Measurement Software



Amenity Manikin System

The Kanomax Amenity Manikin System is an optimal solution for precise interior cabin comfort evaluation. The system measures parameters such as air velocity, temperature, humidity, and radiant heat, which all relate to human comfort levels. One mannequin may be equipped with more than 120 sensors, providing sophisticated measurements.

Features and Benefits

- Up to four mannequins may be measured simultaneously, for complete interior cabin simulation
- Wireless connection for easy operations
- Graphic software for both real-time measurement and data retrieval

Air Conditioner Performance Testing

Measuring total airflow from the air conditioning system contributes to design-efficient climate control based on each vehicle's cabin size. Handheld anemometers measure air supply in the cabin. Remote-controlled sensors may be placed inside other HVAC systems to transmit measurements to the portable reporter. These instruments, combined with the Amenity Manikin System, will provide the most precise cabin comfort evaluation.



Handheld Anemometers

Defroster Performance Testing

Vehicle defrosters control temperature and humidity on window surfaces. For defroster performance testing, air velocity and temperature must be measured at multiple points around the glass areas; mainly the windshield. Omni-directional air velocity probes will measure points as low as 5 mm and below from the glass surface, providing highly accurate measuring results.



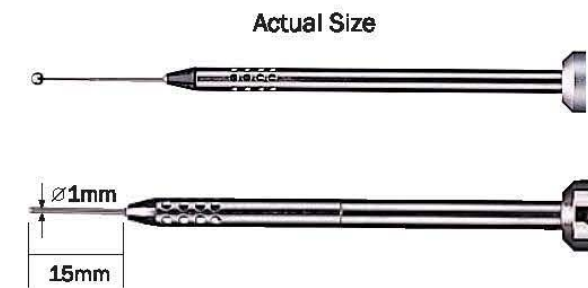
Multi-point Anemometer & Probes



Climomaster & Probes

Omni-Directional Probes

Kanomax omni-directional probes are an optimal tool for a variety of automotive testing applications. Their high resolution readings at low velocities are suitable for aerodynamics and HVAC performance testing. These small form-factor sensors are optimal for taking measurements in focal areas.



Vehicle Cabin Leakage Testers

Leakage testing is performed by pressurizing or depressurizing the vehicle cabin. The Kanomax Cabin Leakage Tester measures the changes in cabin pressure. The control unit consists of a manometer and pressure transducers. The manometer detects the leakage flow, which is calculated by measuring the nozzle pressure relative to static pressure. The tester controls an adjustable fan to maintain static test pressure. Five selectable inlet nozzles provide reliable leakage flow rate measurements of 2.5 to 800 CFM.



Simulation Test Sources Generators

Steam Generator

The S0104-4 is a vapor steam generator that equips demister. The user can simulate the level of steam generated by the human body. The generator is ideal for interior cabin comfort testing. The S0104-4 complies with JIS D 4502/4504-1994, ISO 3470-1989(E), EEC 661, and SAE J953 standards.



Cabin Leakage Tester

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Kanomax Group

Since our inception over 85 years ago, Kanomax has been a manufacturing leader in providing a broad range of precision measuring instruments for fluid mechanics research, environmental, aerosol research, particles measurement, and customized system applications. As a company that prides itself in cutting-edge technology development, product quality, and service, we have been enjoying an unsurpassed reputation in industrial and academic fields.

Calibration Facility Ensures Accuracy and Repeatability

Kanomax fully understands service to be an essential part of the total solution provided to our valued customers. Having already established a worldwide service network, we continuously strive to improve our support services.

For reliable measurements, it is recommended that all instruments be calibrated on an annual basis. This ensures ongoing credibility and accuracy.

Our calibration laboratory in New Jersey maintains the most accurate wind tunnel of its kind. Kanomax provides the highest quality of service available with a quick turnaround time. Our service specialists are well trained and will calibrate your instruments to the highest standards.

Providing a Range of Outstanding Solutions

Laboratory Control

Control ventilation and temperature in critical controlled air environment spaces, such as laboratories and cleanrooms in order to maintain the integrity of experiments and production processes. Kanomax provides instruments, such as the Airflow Transducer Model 6332D for bio-safety cabinet testing. Users can detect leakage and test HEPA filter efficiency.



Cleanroom Contamination Control

Kanomax cleanroom contamination control products are designed to serve applications from continuous monitoring to certification for any clean environments in the pharmaceutical, electronics, medical, and food industries. The Kanomax Cleanroom Monitoring System provides an automated means to monitor and gather airborne particle count and other parameter levels in controlled environments.



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