aerosensor

Yaw Pitots

Accurate measurement of wind speed and direction in demanding test environments

Yaw Pitots measure both dynamic pressure and wind yaw angle simultaneously, with the added benefit of improving dynamic and static pressure accuracy across the yaw range.

Originally developed for high-level motorsport — now standard equipment in Formula One, where teams will bring a car in from a session if the yaw pitot fails — these probes are finding broader application across heavy haulage, elite cycling, aerospace, and UAV testing. Aerodynamic forces are heavily influenced by yaw, which can easily reach double digits with ambient wind. Without accurate on-road yaw measurement, reliable correlation of wind tunnel or CFD data is not achievable.

Manufactured by Aero Sensor using Direct Metal Laser Sintering (DMLS) technology, each probe is rugged and readily customized to your specific mounting requirements. Standard production is in stainless steel, with Inconel available for high-temperature environments up to 980°C and titanium for weight-critical applications.

Every probe is individually calibrated in Aero Sensor's in-house wind tunnel across five discrete speeds and the full operating angle range. Calibration data is delivered as simple lookup tables for fast integration into real-time measurement systems or post-processing workflows.

Specification:

Accuracy:	+/-0.25%
Flow angle:	Up to +/-30°
Max temperature:	980°C
Minimum probe head diameter:	3.6mm

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