

AIMMS-20 Sting-Mount Air-Data Probe

PHYSICAL

Design:	Measurement Boom with 8 X 10-32 integrated mounting points. 5-hole probe at tip with static ports to resolve 3-D vector. Ellipsoidal after-body to generate reverse flow for T/RH sensing. All sensors and electronics housed in the measurement boom.
Probe Dimensions:	36" long X 1.5" dia. measurement boom with hemispherical tip.
Weight:	3.0 lb

ENVIRONMENTAL

Operating Temperature:	-40 C to 50 C
Storage Temperature:	-45 C to 90 C

ELECTRICAL

Operating Voltage:	12V conditioned input (voltage input can be adjusted to order within range of 9 – 36V)
Operating Current:	100 mA (excluding separate anti-icing circuit)
Digital Interface:	Controller Area Network (CAN2A), 500kbps data rate RS-232 Serial Port (default 19.2 kbps)

PERFORMANCE

Internal Sampling Rate:	200 Hz
Digital Lowpass Freq. Range:	1 Hz – 40 Hz
Max. Data Output Rate:	40 Hz

ADC Resolution:	14-bit
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Angle-of-attack and Sideslip Pressure differentials:

Range	+/- 7000 Pa
Accuracy	20 Pa + 0.1% of reading

Pitot-Static Pressure Differential:

Range	0 – 14000 Pa
Accuracy	20 Pa + 0.1% of reading

Barometric (Static) Pressure:

Range	0 – 110000 Pa
Accuracy	100 Pa + 0.05% of reading

3-Axis Acceleration:

Range	+/- 10g
Accuracy	0.005g

Temperature:

Resolution	0.01C
Calibrated accuracy	0.05C
Step response time (1/e)	5s
In-flight data accuracy	0.1C
Including dynamic heating error uncertainties	0.3C

Relative Humidity:

Resolution	0.1%RH
Accuracy	2%RH (0% – 100%RH)