

CAMBRIDGE
ACCUSENSE Airflow and Airflow Temperature Sensors
for the ATM2400 Measurement System

features

- UAS1000 measures air velocity and airflow temperature simultaneously
- Sensors connect to the ATM2400 data hub
- Easy to use – just plug in and start measuring
- Validate thermal and airflow models quickly and accurately
- Small sensors to reach distant and compact locations
- Fully interchangeable with one another
- 3 sensor head options

overview

The AccuSense™ UAS1000 Series is an air velocity and air temperature sensor used with the ATM2400 Measurement System.

With a variety of sensor ranges from 0.15 m/s to 20 m/s (30-4000 fpm), the AccuSense UAS1000 Series offers such features as unimpaired access to tight locations, improved measurement accuracy, ease of installation, multipoint measurement, rugged construction, and probe interchangeability.

The UAS1000 offers three unique sensor head styles, remotely located on a 5 meter shielded cable, to provide access in distant and compact locations such as between semiconductor devices, heat sinks, and inside ducts and plenums. These small heads cause minimal distortion of the true airflow profile, and air velocity and airflow temperature measurements are obtained at the same time.

The AccuSense UAS1000 Series sensors are also fully interchangeable with one another, since each sensor has its own on-line circuitry normalizing the performance of each sensor.

Simultaneous use of up to 36 UAS sensors with the ATM2400 data hub allows the user to have a snapshot of the airflow environment at any given time. Multiple ATM2400's can be connected together

to obtain up to 100 data points. For surface temperature measurement, please refer to the UTS1000 Thermocouple Sensor datasheet. Humidity sensing is available with the UHS1000. UAS1000, UTS1000, and the UHS1000, can be used simultaneously with the ATM2400 data hub to obtain airflow, air & surface temperature, and humidity in one instrument.



ATM2400 Data Acquisition Hub for USB Sensors

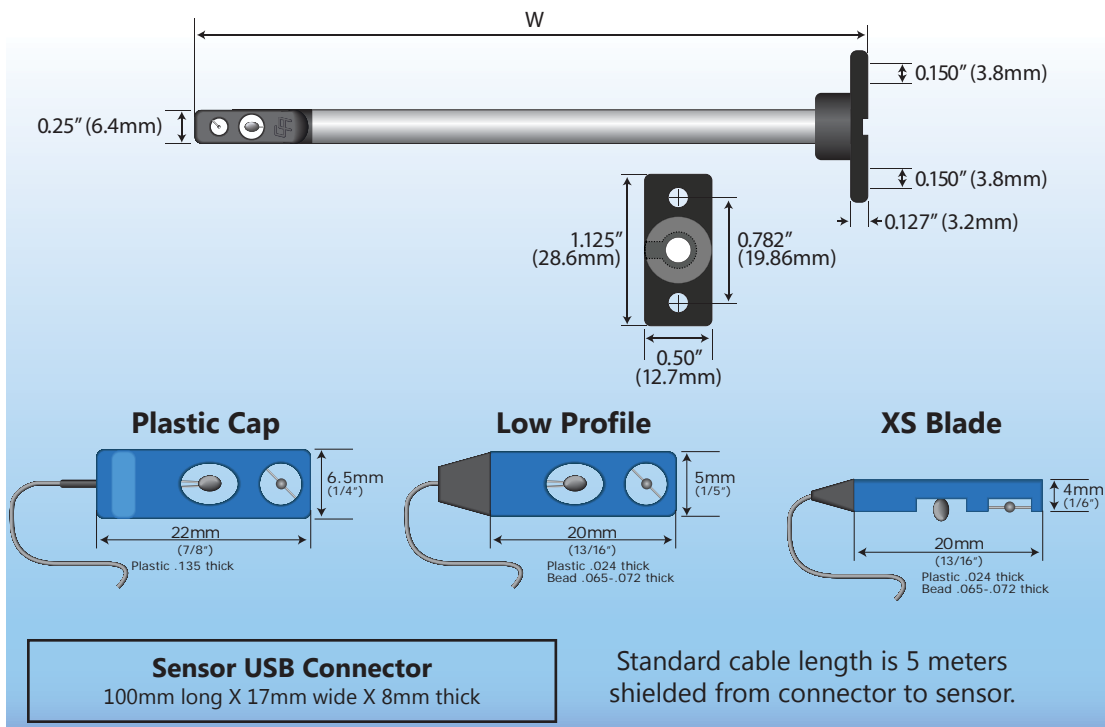


UAS-1000 Air Flow and Air Flow Temperature Sensors

specifications

Operating temperature	0°C to 70°C
Storage temperature	-40°C to 85°C
Relative humidity (non-condensing)	5-95%
Warm up time after power up	Less than 5 seconds
Supply voltage	Supplied by the ATM data hub

sensor wand specifications



airflow & temperature measurement

Air Velocity _____

Temperature compensation range: 0-70°C (32-158°F):
Accuracy: ±5% of reading or ±0.05m/s (10fpm) or 1% of FS
Repeatability: ±1% of reading

Temperature Compensation Range: The UAS-1000 is a thermal airflow sensor; it is sensitive to changes in air density and indicates velocity with reference to a set of standard conditions 25°C (77°F), 760mmHg (101.325kPa), and 0%RH. The UAS-1000 has been designed so that when used over the stated temperature compensation range, the sensor indicates very close to actual air velocity and minimal compensation is only required to account for changes in barometric pressure or altitude. Changes in relative humidity have a minimal impact and can usually be ignored.

Accuracy: Valid between 15-35°C (60-95°F), increasing by ±0.25% per degree and ±0.005m/s (1fpm) over remaining temperature compensation range.

¹Above 0.5m/s (100fpm), ±1.5°C (2.7°F) below 0.5m/s (100fpm).

Airflow Temperature _____

Measurement range: 0-70°C (32-158°F)
Measurement Accuracy¹: ±1°C (1.8°F)
Resolution: ±0.1°C

part number format

UASXXXXXX

1100 0.15 – 1.00 m/s (30 – 200 fpm)
1200 0.50 – 5.0 m/s (100 – 1000 fpm)
1300 4.50 – 20.0 m/s (900 – 4000 fpm)

PC Plastic Cap
LP Low Profile
XS Extra Small Blade

W1 1.25" Wand Head
W3 3" Wand Head
W5 5" Wand Head
W7 7" Wand Head

Special Wide Range Application UAS Sensor - new product offering

1500 0.15 – 20.0 m/s (30 – 4000 fpm) - This style sensor approved for EnergyStar™ testing for ceiling fan systems

Specifications subject to change without notice.

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