

Additional Products

In addition to the AHSS unit, other products may be needed depending on the application. For outdoor locations, a Shore Unit (Model 93185) may be required to protect the AHSS from harsh weather conditions. The Shore Unit comes with a weather enclosure to house the AHSS, as well as an internal ventilation system to maintain air circulation.

Also available is the AHSS Calibration Kit, complete with temperature references, calibrators, calibration salts, and a Windows tablet with a copy of our AHSS software. It is recommended that calibration be done on a quarterly basis to ensure the accuracy of the system.

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Business Hours:
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Deban Enterprises, Inc.

Process Instrumentation &
Specialty Products

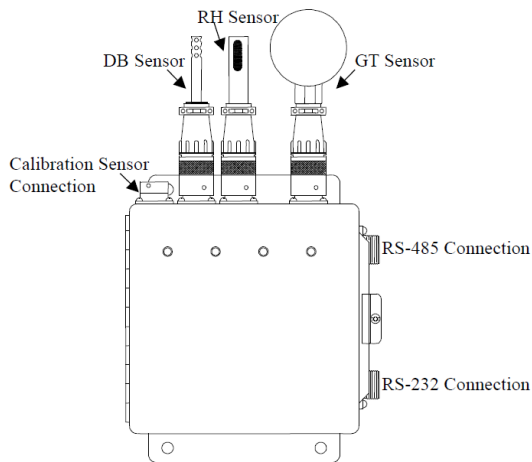
**Automated Heat Stress
System (AHSS)
Model 19506**

Phone: (937) 433-1600



AHSS Unit Overview

The Automated Heat Stress System (AHSS) provides a continuous, on-line measurement of Dry Bulb (DB) Temperature, Wet Bulb (WB) Temperature, Globe Temperature (GT), and Relative Humidity (RH), values which are used to calculate the Wet Bulb Globe Temperature (WBGT) Index for Physiological Heat Exposure Limits (PHEL) stay times. The AHSS is a highly accurate environment monitoring system designed to detect the parameters needed for the WBGT index value of a specific location.



Current Applications

The AHSS is currently used in military applications for safety monitoring in hot and humid locations on US Navy ships, US Navy and Marine Corps bases, and more. While it's presently used in military settings, the AHSS is versatile enough to be used anywhere with hot and humid conditions - factories, farm fields, parks, and others.

SPECIFICATIONS

System Accuracy:

- Globe Temperature: $\pm 0.5^{\circ}\text{F}$
- Dry Bulb (DB) Temperature: $\pm 0.5^{\circ}\text{F}$
- Relative Humidity (RH): $\pm 3\%$

System Range:

- Globe Temperature: $32\text{-}158^{\circ}\text{F}$
- Dry Bulb (DB) Temperature: $32\text{-}158^{\circ}\text{F}$
- Relative Humidity (RH): $5\text{-}95\%$

Resolution:

- A/D: 20-bit
- Network Data: 0.1
- RS232 Data: 0.01

Sensors:

- Globe Temperature:
Thermistor Probe ($30\text{k}\Omega$ at 25°C)
- Dry Bulb (DB) Temperature:
Thermistor Probe ($30\text{k}\Omega$ at 25°C)
- Relative Humidity (RH):
Minicap 2, Capacitive $200\text{-}250\text{pF}$

Current Consumption:

- Idle Communication: 80mA
- While Communicating: 120mA

Communication Method:

- RS485: general use
- RS232: local connection for diagnostics

Operating Range: $32\text{-}149^{\circ}\text{F}$

Power Supply: 12-18VDC

Scan Rate: 4-5 seconds

INSTALLATION TIPS

The AHSS can be mounted on walls or poles and above walkways. A minimum 6 inches of clearance above the sensors is needed to allow for removal. It is recommended that the area has some ventilation to prevent dead air from forming around the sensor, which may result in higher temperature, and therefore inaccurate, readings.

For outdoor installations, it is important to note that the sun must reach the Globe sensor at all points during the day. For this reason, it is recommended that buildings, trees, and other large structures that may cast shadows or block natural air flow be avoided. Also, avoid installations above asphalt, as radiating heat may affect temperature readings.



How to Order

To order the AHSS, please call us at (937) 433-1600 during normal business hours, Monday through Friday from 8:30am to 4:30pm. We can also be reached by email: at deban@debanenterprises.com. Thank you!

