



Bio Instruments S.R.L.

SENSORS AND SYSTEMS
FOR MONITORING GROWING PLANTS

ATH-2z
Wireless
Air Temperature and Humidity Sensor



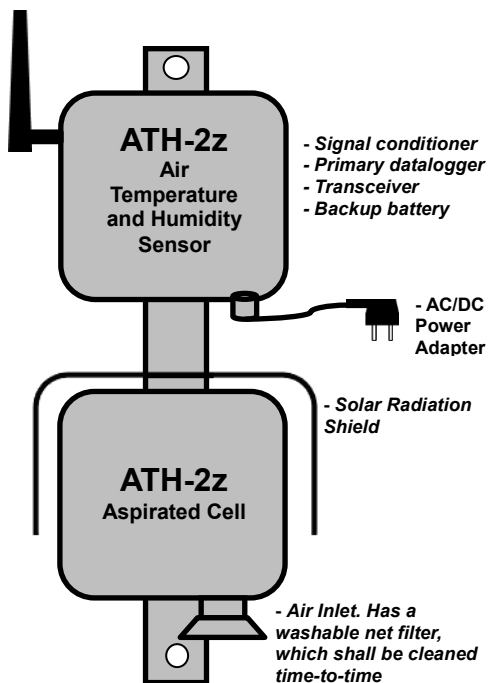
Description

The ATH-2z wireless sensor is an accurate tool for monitoring air temperature and relative humidity (RH) in protected crops. To provide better accuracy, the effective mini fan aspirates the sensor's probe. The ATH-2z also calculates vapor pressure deficit and dew point temperature from the RH and temperature measurements. The ATH-2z represents average values of measurements made 10 times evenly during the measurement time interval. For instance, at 30 min time interval, the ATH-2z takes measurements every 3 minutes and, then, calculates and records the average of those ten values measured.

The ATH-2z consists of 2 boxes: a signal conditioner, datalogger, transceiver and backup battery in the upper box, the blower and the Air Temperature and Relative Humidity probe in the lower box. The lower box is also protected by a radiation shield.

Communication

The ATH-2z communicates over the radio 2.4 GHz channel with a network data logging unit. Activation of the sensor and measurement settings are described in the Quick Start Guide of the data logging unit (PM-11z Phytomonitor or PC Phyto-Logger).



Power

The ATH-2z is powered from 100 to 240 VAC power adapter. The Li-ion backup battery provides at least 12 hours operation in case of external power break.

To activate the sensor:

- a. Open the front lid of the top box.
- b. Remove the isolating slip from the battery compartment.
- c. Close the box.
- d. Mount the ATH-2z using the mounting plate located at the rear side of the enclosure. Front side shall be oriented opposite to sun, i.e. to North in the Northern hemisphere.
- e. Connect the power adapter to the power outlet (100 to 240 Vac, 50/60 Hz).

Maintenance

The only maintenance required time to time is cleaning of the air filter, located at the bottom of the sensor's box. Unscrew and clean the filter with water and brush using mild detergent if necessary. Let the filter dry out before placing back.

Specifications

Temperature

Range: -5 to 50 °C

Resolution: 0.1 °C

Accuracy: ± 0.5 (5 to 40 °C)

Humidity

Range: 0 to 100% RH

Resolution: 0.1 %RH

Accuracy: ± 2 %RH (5 to 90%RH)

± 3 %RH (above 90%RH)

Power Requirements: 100 to 240 VAC @ 50/60 Hz

Customer Support

If you ever need assistance with your ATH-2z, or if you just have questions or feedback, please e-mail at support@phyto-sensor.com. Please include as part of your message your name, address, phone, and fax number along with a description of your problem.



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