



## AM-200 temperature and air humidity sensor

- ✓ wireless
- ✓ for indoor and outdoor use
- ✓ solar powered
- ✓ continuous control of air temperature and humidity
- ✓ readouts available online from any place on desktop computers and mobile devices (smartphone, tablet, laptop)

AM-200 sensor is a dedicated device for the remote monitoring of air humidity and temperature, the parameters which are very important from the point of view of agricultural technology. The area of application of the AM-200 sensor covers many types of agricultural and horticultural crops where it is necessary to precisely determine the temperature and humidity of the air.

The climate parameters values measured by the AM-200 sensor are sent wirelessly to the base station of the AGREUS® System, and from there, via GSM, to the application available online both via a web browser on desktop computers as well as in a dedicated application on mobile devices (Android).

### KEY FEATURES

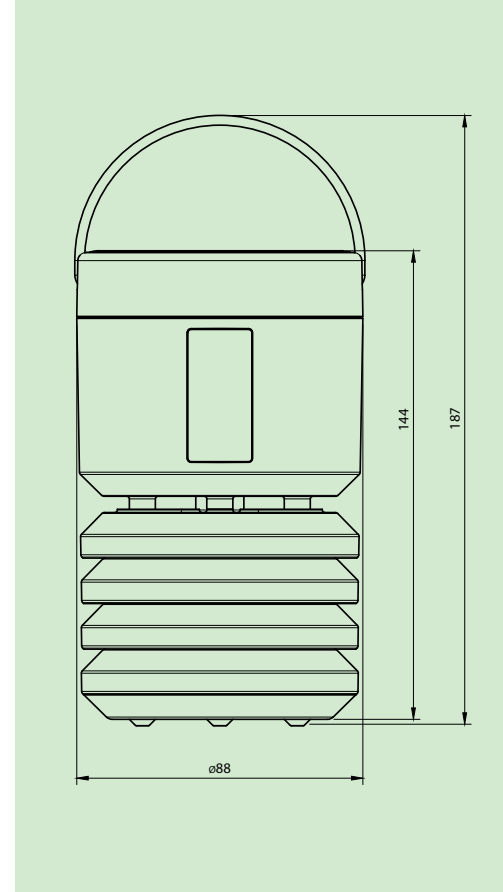
- Wireless – transmission of measurement data takes place via Semtech LoRa®, which eliminates the risk of damage of wiring caused by agricultural machinery or animals,
- Range up to several kilometers (depending on the topography and the land cover as well as the height of the AGB-20xx base station placement),
- High frequency of measurements – every 10 minutes,
- Solar power supply with battery backup – ensures continuous operation of the sensor even in the area with no access to external power sources,
- IP 44 resistance to environmental conditions means the operational reliability regardless the weather conditions,
- A special design that allows easy installation in a various places,
- Acoustic and visual signaling informing the user about the sensor status, i.e. whether it is on or off,
- Easy integration with the AGREUS® system thanks to technology TapIN (NFC) – the system recognizes the probe itself after approaching (Note! The smartphone must be enabled to read NFC and running Agreus application)



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AM-200 sensor data is transferred to the AGREUS® portal using the AGB-20xx base station, which allows you to:

- » use of the climate parameters measured by the probe to make automated agrotechnical decisions,
- » determining the temperature and air humidity thresholds, which generates a notification for the user when exceeded (SMS or email),
- » analysis of historical measurement data



### Technical data

#### General

- Dimensions: 187 mm x Ø88 mm
- Weight (including batteries): 350 g
- Mounting method: hung by a hook in the top of the housing
- Operating temperature: -20 do +60 °C
- Relative humidity: up to 99 %, no condensation
- Protection class: IP 44

#### Measuring element

##### Air temperature

Measurement range:	-20 to +60 °C
Measurement resolution:	0.1 °C
Measurement accuracy:	typ. ±0.1 °C max. ±0.15 °C

##### Air humidity

Measurement range:	20–80 %	0–99 %
Measurement resolution:	1 %	1 %
Measurement accuracy in the measuring range:	typ. ±2 % max. ±3 %	typ. ±3 % max. ±5 %

#### Radio modem

- Radio technology: Semtech LoRa®
- Working channel frequency: 869.5 MHz
- Working channel band: 125 kHz
- Maximum transmitting power: 25 mW
- Receiver sensitivity: -133.5 dBm
- Antenna: built-in

#### Power supply

- Built-in 3.6 V 2 Ah DC battery (3x1.2 V NiMH AA)
- Average supply current (for 3.6 V DC): 200 µA
- 1 panel 80 mm in diameter, Voltage: 6 V, Current: 85 mA, Power: 0.6 W.

#### User software

Dedicated AGREUS® application available via a web browser (Chrome, Edge) and as a dedicated mobile application for Android (version 6.0 or higher).