AGROMETEOROLOGICAL INSTRUMENT

Hand–held Agricultural Weather Monitor　　　　　Model: TNHY series

Humiture	Co$_2$	Soil moistrue	Soil temperature
Wind speed	Wind direction	Illuminance	PAR
Soil salinity	pH	Air pressure	Rainfall

● Brief introduction

Hand-held Agricultural Weather Monitor can real-time acquire air temperature, humidity, light intensity, PAR, wind direction and speed, Rainfall, CO_2 concentration, soil temperature, soil moisture, soil pH and Soil salinity etc. It is widely used in facilities agriculture, forestry, horticulture, animal husbandry and other fields, and fulfills to carry out conduct of automatically monitor, automatic control and intelligent management to the facilities for comprehensive agricultural ecological information.

● Characteristics

▲ Small and exquisite, easy to carry and LCD display;

▲ Collect settings: working unattended can be set to timing or manual collect data, recording and save data automatically;

▲ Both AC and DC available, 8.4v 1500mAh Li-ion battery, with charging protection, Low voltage protection. Suitable for field detecting as well.

▲ With GPS, data recording automatically, real-time display and save longitude and latitude

▲ Storage capacity: up to 30,000 groups in Data logger, and equipped with 4G Micro SD.

▲ Data can be read on Data logger and transmitted to PC.

▲ Power-off memory function: the data already saved in SD card won't lose when out of power.

▲ Probes with uniformity: different probes can be connected to data logger through hubs with no barriers.

▲ Auto detection: After connects to data logger, we can search different sensors manually without accuracy errors.

▲ With 32 channels, test at the same time, probes are unlimited in the range of capacity.

▲ RS485 wire communication, sensor communication cables could reach about 100 meters.

▲ Low-power design, equipped with system monitor and protection function to avoid short circuit or interference from external.

▲ Two colors for optional: blue and orange

Software:

▲ Showing the curve trends of each parameter, Max, Min, and Avg. Zoom in and out function.

▲ A visual display of Coloring the overrun area function   ▲ Store the data in EXCEL format as a copy.

▲ Be able to view period of parameter or graph, with printing function.

▲ All curvilinear coordinates can be set and moved, which make analysis easier.

Data logger technical parameters:

▲ Record capacity: up to 30,000 groups in Data logger, and equipped with 4G Micro SD.

▲ Record time interval: 5min~99hour.   ▲ Sensor communication: RS485

▲ Working power supply: 8.4v 1500mAh Li-ion battery

▲ Working current: stand-by power consumption 10mA, working power consumption according to the configuration.

● Technical parameters (OPTIONAL)

Testing index	Parameter	Testing index	Parameter
Temperature	range:-40°C-120°C accuracy:±0.4°C resolution:0.1°C	Rainfall	range:0-4mm/min accuracy:±0.1mm resolution:0.1mm
Humidity	range:0-100%RH accuracy:±3%RH resolution: 0.1%RH	CO_2	range:0-2000PPM or 0-5000PPM Volatility:±(50PPM+ Measurements×3%) resolution:1PPM
Dew Point	range:-40°C-120°C accuracy:±0.4°C resolution:0.1°C	Illuminance	range: 0-200000LUX resolution: 1LUX accuracy:±2% (0-20000lux)
Soil salinity	range: 0-19.99ms/cm accuracy: ±2%	Soil Temperature	range:-40°C-100°C accuracy:±0.3°C resolution:0.1°C
Soil compaction	range:0-100kg accuracy:±0.5‰ F.S	Soil Moisture	range:0-100% accuracy: ±3% resolution:0.1%
PAR	range:0-2,700µmolm-2s-1 accuracy:±1µmolm-2s-1 resolution:1µmolm-2s-1	Soil pH	pH range: 1-14pH pH accuracy: ±0.5
Wind Direction	range:0-359° accuracy: ±3°	Wind Speed	range:0-45m/s accuracy:±(0.3+0.03v)m/s
Air pressure	range: 300.0hPa~1100.0hPa Accuracy: ±1hPa	Global solar radiation	range: 0-2000W/m^2 Accuracy: ±5%
Water vaporization	range: 0~100mm Accuracy: 0.1mm	UV radiation	range: 0~6mW/cm^2 Accuracy: ±5% (0~3mW/cm^2)

● Model difference

Model	Function differences
TNHY-4	temperature, humidity, Illuminance, CO_2 concentration
TNHY-5	temperature, humidity, Illuminance, CO_2 concentration, PAR
TNHY-6	soil temperature, soil moisture,temperature, humidity, Illuminance, CO_2 concentration
TNHY-7	soil temperature, soil moisture,temperature, humidity, Illuminance, CO_2 concentration, PAR
TNHY-8	soil temperature, soil moisture, soil salinity,temperature, humidity, Illuminance, CO_2 concentration, PAR
TNHY-9	soil temperature, soil moisture, soil salinity temperature, humidity, Illuminance, CO_2 concentration, PAR, soil compaction
TNHY-10	soil temperature, soil moisture,temperature, humidity, Illuminance, CO_2 concentration, PAR, wind speed and wind direction, rain gauge
TNHY-11	soil temperature, soil moisture, soil salinity temperature, humidity, Illuminance, CO_2 concentration, PAR, wind speed and wind direction, rain gauge
TNHY-12	soil temperature, soil moisture, soil salinity temperature, humidity, Illuminance, CO_2 concentration, PAR, wind speed and wind direction, rain gauge, soil pH
TNHY-13	soil temperature, soil moisture, soil salinity temperature, humidity, Illuminance, CO_2 concentration, PAR, wind speed and wind direction, rain gauge, soil pH, global solar radiation