

Agriculture Automation By AdvanceTech India Pvt. Ltd.



Soil & Water Engineering



Environment Science



Horticulture



Metrology



Agronomy

ADVANCETECH INDIA PVT. LTD.

(AN ISO 9001 :2008 COMPANY)

Environmental Weather Station

Sensors Specifications

- **AdvanceTech India Pvt. Ltd.** is proud to introduce a new generation of weather station technology, our environmental data loggers are designed specifically for recording environmental conditions, with solar power and wireless alerts, and recordings.
- **Temperature Sensor** Range:-20 to 80 degree c, Accuracy+/-0.3degree c
- **Humidity Sensor** Range: - 0 to 100% RH, Accuracy+/-2% RH
- **Wind Speed:** - Range 0 to 320 km/hr, Accuracy +/-1m/s
- **Wind Direction:** - Range 0 to 360 degree, Accuracy +/- 5 %
- **Rainfall Sensor:** - Range 2,438 mm/hr, Accuracy +/- 4%
- **Barometric Pressure:** - Range 150 - 1150 m bar, Accuracy +/- 1.5% FSS
- **Solar radiation:** - Spectral Range 400 to 1100 nm, Sensitivity +/- 5%
- LED indicators provided for simple identification of operating status and mode.



Soil Moisture Data Logger

- **Soil Moisture Data Logger** feature latest technology support and helps in logging Moisture content of the soil and log into MS Excel file with proper date & time stamp. Sampling rate can be adjustable from 600 sample/second to 1 sample/week This Data logger can send SMS of the current sensor reading & GPS Coordinate can also be logged.

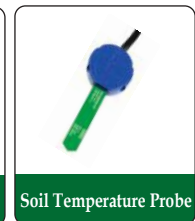
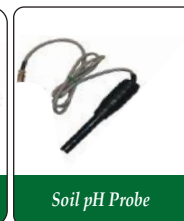
(1) Soil Moisture Sensor Probe Specifications

- Power Consumption < 7mA
- Supply Voltage 3.5V to 20 VDC.
- Power on to Output stable 400 ms.
- Output Impedance 10K ohms.
- Operational Temperature -40°C to 85°C.
- Accuracy at 25° C 2%.
- Output 0 to 3V related to moisture content.
- Voltage Output Curves Curves, Piecewise linear equations..



(2) Soil pH Probe Specification

- **Measurement Range:** 0.0 - 14.0 pH
- **Operating Environment:** 0 - 60°C / 32 - 144°F
- **Accuracy :** 0.02 pH



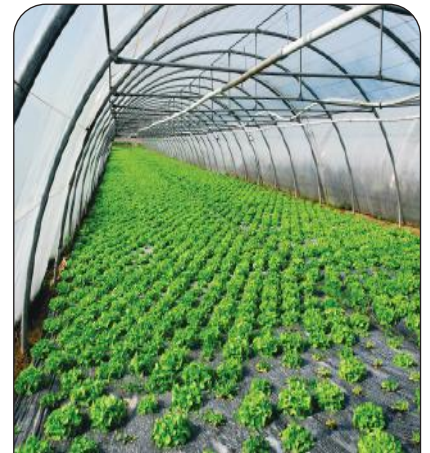
(3) Temperature Probe Specification

- **Power consumption :** < 3mA
- **Supply Voltage :** 3.6V to 20 VDC.
- **Power on to Output stable:** 2 seconds
- **Output Impedance :** 10K ohms
- **Operational Temperature :** -40°C to 85°C
- **Accuracy :** ±0.5°C
- **Resolution :** 0.125°C
- **Output Voltage Range :** 0V to 3V linear to temperature
- **Voltage Output Equation :** Temperature (°C) = $V_{out} * 41.67 - 40$
- **Temperature (°F) =** $V_{out} * 75.006 - 40$

Poly House / Green House

Specification

- AdvanceTech offer customized automation of polyhouse through PLC & Controller.
- **Relative humidity control:** The humidistat coupled to water circulating pump to control the relative humidity of soil.
- Here we maintain the relative humidity of soil.
- This is one type of watering system in this soil sensor is use to find out humidity in soil and if it is less then motor pump start and water is giving to the soil.
- **Light intensity control:** In certain areas where natural illumination is absent or very low, illumination for plants may be provided by artificial sources.
- Incandescent bulbs generate excessive heat and are unsatisfactory in most instances.
- Fluorescent tubes are useful as the sole source of light.
- **Programming Logic Controller :** Control engineering has evolved over time.
- More recently electricity has been used for control and early electrical control was based on relays.
- **Temperature:** We will use thermocouple as temperature sensor. Temperature is sense an after that this signal is send to plc. In that plc a particular set point is given and if it is below or above it take action likewise.



Green House

Soil Test & Fertiliser Recommendation

Specification

- AdvanceTech offers a soil testing kit for testing the nutrient present in soil & we communicate all the data in cloud or in LCD Display.
- It is developed by Scientists at Indian Agricultural Research Institute,PUSA after years of research. WS Telematics under license from IARI,PUSA is manufacturing PUSA Digital Soil Test and Fertilizer Recommendation (STFR) Kit. This soil testing kit helps farmers in testing 12 parameters of soil & recommends crop-specific fertiliser dose for 100 crops within a short time and at a centre nearby, and thus helps them to achieve higher yields, increase their income and keeps soil fertile.
- Tests 12 Parameters of Soil
- Recommends Crop Specific Fertiliser Dose for 100 Crops
- Prints Soil Health Card
- Sends Soil Health Card to farmers on SMS
- Has in-built battery backup of 6 Hours
- Can be charged via Solar Panel that comes with kit
- Soil reaction (pH)
- Salt content (EC)
- Crop Testing
- Lime requirement of acidic soil
- Organic Carbon
- Gypsum requirement of alkali soil
- Available Phosphorus



Soil Test & Fertiliser

Cold Chamber

Specification

- AdvanceTech Offer's Cold Chamber which is used in horticulture Research & Projects works for Fruits Prevrage to maintain a single or multiple temperature Range.
- Customize automation of green house by PLC Controller.
- This unit has double walled insulated PUF modular panels, which can easily be assembled at site without any major hassles.
- Interior is made of Stainless Steel and Exterior is either made of Mild Steel Stainless Steel trays.
- The unit has double walled leak proof metal door with lock, with a provision of opening door from inside.
- Forced air circulation for uniform temperature.
- Ethernet Port to communicate the data in cloud, EMI or LCD Display.



Cold Chamber

Rain Gauge

Specification

- Our Automatic rain gauge has got facility for data recording at both in the data logger as well as it can send data of internet, and it can be view from outside.
- The 8" collector meets NWS specifications for statistical accuracy self-emptying.
- Each tip of the bucket shows 1/100th of an inch on the indoor LCD display.
- A built in bubble level allows for accurate installation.
- The wired units come standard with 60 foot cable.
- A simple button allows you to reset counter to zero after each rainfall.
- The data loggers with arm processors with, SD card, display LCD 20X4 and battery back system.
- The data logger will be provided with GSM and GPRS facility as well as Modbus facility for data transfer.
- A long-life lithium battery is included.
2 year warranty on data logging and transmission.
- **Housing:** High Impact Polypropylene, UV Inhibited.
- **Transducer:** Tipping Bucket of specially formulated plastic for low surface tension.
- **Switch:** Dry reed switch.
- **Accuracy:** 2% at 1.5" per hour.
- **Output:** Less than 0.1 sec. switch closure.
- **Capacity:** 6 to 24 VDC @ 500ma.
- **Resolutions Available:** 0.01 inches.



Rain Gauge



All The Technology You need

AdvanceTech India Pvt.Ltd

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