

# Soil Moisture & Temperature Recorder



'Virtual' make Soil Moisture Temperature Recorder offers professional Soil monitoring and good value for money. The standard Soil Moisture Temperature Recorder consists of a weatherproof enclosure, which contains the data logger and power supply, and comes complete with a solar panel, tripod stand and Soil Moisture Sensors (Watermark) & Temperature sensor. Measure every major environmental condition with this powerful sensors & Data logger. Measurements can automatically store in systems memory as per user selectable logging period. Comes with integral solar panel, which will easily keep the batteries charged throughout the year. A durable hard enclosure protects the data logger from weathering. User-replaceable SMF batteries. Data file is saved in Microsoft's Excel.

### Features & Specifications:

- Sensor Input: Seven Soil Moisture & One Soil Temperature Sensor
- Standard system comes with 7-Soil Moisture & 1-Soil Temperature sensor that can be extended up-to 8-Soil moisture & 8-Soil Temperature Sensors (at extra cost)
- Parameter Monitored: Date, Time, Soil Moisture suction in Centibars & Soil Temperature in °C, Battery Voltage.
- Display: 16 Characters X 2 Lines alphanumeric display,
- Keyboard: 4x2 membrane keypad for onsite programming of data logger.
- Real Time Clock accuracy: Internal with  $\pm 2$  minutes / year & leap year compensation
- Number of Channels: Eight (extendable up to 16 at extra cost).
- Channels Configuration: Factory configured sensors as per purchase order.
- Memory: More than 16000 data points (extendable at extra cost). store 1 year data at user's selectable 1 hour interval
- ADC Resolution: 16+ bits
- Unattended recording. Virtually maintenance free
- Logging Interval: 1 min to 24 Hr program log Start time within next 24 hours
- Operating Temperature: - 40 to 75 °C. Humidity: 0 to 95 % non-condensing.
- Power Supply: 12V SMF battery, Charging: Solar Panel / 220V AC (Optional).
- Battery Life: More than 1.5 Years (Easily Available in local Market)
- Solar Panel:: 12 Volt DC, Wattage: 10, 20 & 40 Watt (as per system power requirement)
- Along with Small Stainless Steel Tripod
- Data Output Format: MS- Excel
- Data retrieval: Data shuttle (default) to Computer. Other options also available (at extra cost).

**Other options:** Ethernet, 2G/3G/4G enabled Web based telemetry at Virtual's Portal "www.ehydromet.in".



#### Soil Moisture Sensor:

Type: Granular Matrix  
Range: 0 to 200 Centibar  
Output: Change of Resistance



#### Soil Temperature Sensor:

Range: - 10 to 75 °C.  
Accuracy:  $\pm 0.5$  °C  
Resolution: 0.1 °C

#### Application Software (Virtualware)

This is a user-friendly, Menu Driven, Windows based software allows you to view & save collected data from data logger to computer/laptop. Data file is saved in Microsoft's Excel format.

### Ordering Guide:

SN	Description	Model No.
1	Soil Moisture & Temp Recorder with Data Shuttle option	SMTR-VH-D
2	Soil Moisture & Temp Recorder with Ethernet option	SMTR -VH-E
3	Soil Moisture & Temp Recorder with GPRS Telemetry option	SMTR -VH-GPRS



Represented by: