

Telemetric Rain Gauge (Data Logger with Internal GSM/GPRS Modem and Tipping Bucket Rain Sensor)



Specifications:

Model: VARSHA-TRG

Data Logger:

- Data logger is an integrated microprocessor based data acquisition and storage system
- Adequate hardware configuration and software support to serve as an interface between sensors and the communication link
- Stand-alone and all functions carried out through system keypad and display independent of a PC/ Laptop
- Multi-tasking OS in data logger with unique station-ID for each site
- Keyboard/Display assisted field calibration facility for rain sensor.
- Remote/Field Configure settings for Unique station identification, Sensor Identification
- Over the air software update facility for remote firmware changes in device

| Feature | Specification |
|----------------------------|--|
| Site Conditions | |
| Ambient Temperature | -10 to +55 |
| Humidity | 5 to 100 % |
| Sensor Interface | |
| Analogue Inputs | 8 |
| Digital Inputs | 8 |
| Pulse Input | 2 Input for Rain Gauge impulse |
| I/O Interface | |
| Data Transfer | USB 2.0 for Data transfer |
| Port for Telemetry | GSM Based Telemetry. |
| General Features | |
| Flash memory | 4/8 GB |
| Report Interval | User Configurable (Standard Interval 15 Min) |
| Firmware Operating System | Multitasking Operating System (RTOS) - logs data and transmit at same time |
| Display | Inbuilt Digital display 16 Characters |
| Power Supply | Power supply 12V DC, low current drain |
| Battery Voltage Monitoring | Battery Voltage monitored and reported |
| Internal battery | Internal battery backup for clock, Lithium Battery, storage: 2 years |
| Charge controller | External Charge Controller |
| Internal clock | Internal Clock with drift less than 2 seconds per year |
| Keypad | Keypad for displaying or transferring data to memory stick, configuration of data-logger and sensors |
| Enclosure | Wall /Poll mountable IP65/66 Enclosure |
| Accessories | All accessories for fixing and connectivity |

Power Source:

| Feature | Specification |
|-----------------------|---|
| Battery | |
| Operating Temperature | From -20 to +60 |
| Type | Sealed Maintenance free (SMF) |
| Capacity | 12V/7Ah to 12V/12Ah or Suitable choice to achieve the backup requirement for site |
| Solar Panel | |
| Size | 20W or suitable choice to achieve the backup requirement for site. |
| Mounts | Corrosion free mount and clamps provided to adjust and fix frames holding solar panels. |
| Charger | Smart Solar Charge controller included |

Communication (GSM/GPRS Modem):

| Feature | Specification |
|-------------------------|---|
| Technology | 2G/3G/4G with Dual SIM Compatibility |
| Frequency | 900MHz and 1800MHz |
| Operating Temperature | From -30 to +85 |
| Type | The Transmitter is Integral part of data logger |
| Communication | Two way TCP/IP connection using GPRS |
| Transmission trigger | Transmission triggered by remote site |
| Power Saving | Power down mode available for non-Transmission duration |
| Communication Protocol | Data Transmission by HTTP Post and FTP File upload to Data Centre |
| Functionality | Multi level Alarm dial out, preprogrammed dial out, remote interrogation facilities |
| Remote Management | Switch over to any of the two SIM cards |
| Elect. Characteristics | Current: 30mA/12VDC (receipt) 0.5A (transmission) |
| Accessories | GSM Antenna, cable are provided |
| Antenna Features | |
| Frequency range | 800-960 MHz , 1880-1930 MHz |
| Impedance | 50 ohms |
| Connector | SMA Male |
| Cable length | 3 meter |

Sensor:

| Feature | Specification |
|------------------|---|
| Sensor Type | Tipping Bucket type with Reed Switch |
| Capacity | 200+ mm/hour |
| Resolution | 0.5mm / 0.25mm |
| Accuracy | ± 2 % |
| Output Interface | Pulse / Compatible with Data logger |
| Power Supply | 3.3 V DC |
| Material | Collector : Stainless steel Rim Material: Gunmetal Tipping Bucket: ABS Plastic Mounting Assembly : powder coated brass/gun metal |
| Accessories | Sensor Mounting support, cables and other accessories as required |

Optional: Rain gauge Sensors also available with

1. FRP material for inner and outer components.
2. Stainless steel for collector tipping Bucket.