

*Spatika*



*Varsha*

FAS -GPRS

Flood Alert System



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# Telemetric Water Level Measurement System (Data Logger with Internal GSM/GPRS Modem and Sensors)



## Specifications:

Model: VARSHA

## 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
<b>Site Conditions</b>	
Ambient Temperature	-10 to +55
Humidity	0 to 100 %
<b>Sensor Interface</b>	
Analogue Inputs	8
Digital Inputs	8
Pulse Input	2
<b>I/O Interface</b>	
Data Transfer	USB 2.0 for Data transfer
Port for Configuration	1 RS-232 Port for laptop/PC communication
Port for Telemetry	GSM Based Telemetry.
<b>Analog to Digital Conversion</b>	
Resolution	12 Bit
Conversion Accuracy	± 1 LSB
Sample Intervals	1 m. to 24 hr. in 1 m increments (user selectable)
<b>General Features</b>	
Flash memory	4GB/8GB/16GB
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
User Permissions	Authorized user access
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 Enclosure
Accessories	All accessories for fixing and connectivity
Tools	Complete tool kit for Assembly and Maintenance
Manuals	Manuals , Installation and operating procedures given

**Power Source:**

Feature	Specification
<b>Battery</b>	
Operating Temperature	From -20 to +60
Type	Sealed Maintenance free (SMF)
Capacity	12V/7Ah or suitable choice to achieve the backup requirement for site
<b>Solar Panel</b>	
Size	10 watt 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
Operating Temperature	From -20 to +60
Data Reception Performance	Data Reception availability of >95 %
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
Accessories	GSM Antenna, cable are provided
<b>Antenna Features</b>	
Frequency range	800-960 MHz , 1880-1930 MHz
Impedance	50 ohms
Connector	SMA Male
Cable length	3 meter

**Sensor:**

<b>Feature</b>	<b>Specification</b>
Sensor Type	Non-Contact Radar Type
Range	20 meters
Accuracy	+/-1%
Resolution	0.01m
Output Type	RS232 Serial Output
Power Supply	5V DC
IP Grade	IP67
Operating Temperature	0 to 70 Deg
Diagnostics	Self-diagnostics with error correction for readings

<b>Mounting</b>	
Options	<ol style="list-style-type: none"><li>1. Cantilever arrangement from pole with civil structure</li><li>2. Cantilever arrangement from pole attached to side wall/ fencing</li><li>3. Wall mounting</li><li>4. Custom installation arrangement to suit site requirements</li></ol>

<b>Data Reception System</b>	
	<ol style="list-style-type: none"><li>1. Cloud based or central server</li><li>2. Complete system with cloud service and website with login for monitoring data</li><li>3. Custom Tabular reports</li><li>4. Data Analysis, Info and alert generation</li><li>5. API Access to external data requests</li></ol>