

# Automatic Tide Gauge



A tide gauge is a device for measuring sea level and useful for detecting tsunamis. Sensors continuously record the height of the water level with respect to a height reference surface close to the geoid. Water enters the device by the bottom pipe and Hydrostatic Submersible pressure type level sensors measure its height and record it in to the Data logger memory with date and time stamp. Tide gauges are used to measure tides and quantify the size of tsunamis. The measurements make it possible to derive the mean sea level.

“Virtual” make Automatic Tide Gauge reflect state of the art in micro controller based instrumentation design. The Two Level sensor (One each Non-contact Radar Type and contact pressure type sensors) can be attached with this data logger for the collection of real time data automatically. The micro controller has its internal memory along with, a real time clock with an LCD (16 X 2) to display the instrument status. Data file is saved in Microsoft’s Excel.

### Features & Specifications:

Sensor Type: Vented Gauge Pressure Sensor, Non-Contact Type Radar Sensor

- Parameter Monitored: Date, Time, Instantaneous Tide Level, Maximum Tide Level (Log Rate), Minimum Tide Level (Log Rate).

- 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.
- Settling time < 5 sec , Repeatability:  $\pm 0.05$  % Full Scale
- Accuracy:  $\pm 0.1$ % Full Scale
- Memory: more than 16000 data sets (extendable @ extra cost). Store 1 year data at user’s selectable 1 hour logging interval.
- ADC Resolution: 16+ bits
- Unattended recording of Water Level. 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 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”.

### 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	ATG with Data Shuttle option	ATG-VH-D-XXX-YYY-ZZZ
2	ATG with Ethernet option	ATG -VH -E-XXX-YYY-ZZZ
3	ATG with GPRS enabled WEB-Based Telemetry option	ATG -VH -GPRS-XXX-YYY-ZZZ

**\*XXX represents Measuring Range of the Radar sensor (05, 020, 035)**

**\*YYY represents Measuring Range of the Pressure sensor (010, 020, 050, 070)**

**\*ZZZ represents cable length of the sensors (020, 050, 070, 100, 200 or 300)**

Please mention Measuring Range information along with your enquiry / Purchase order

Represented by: