

## FP111 : Water Flow Meter



### FEATURES:-

- Digital display in ft/sec or m/sec
- Records 30 data sets for later analysis
- Rain-proof digital computer
- Highly accurate easy flow monitoring
- Debris shedding turbo-prop
- Lightweight, rugged, and reliable
- Telescoping handle with staff gauge
- Padded carrying case for easy storage
- CE Certified
- Used by water professionals worldwide since 1990
- Ideal for measuring flows in streams, rivers, canals, stormwater, wastewater, inflow and infiltration studies, industrial process waters

### Flow Probe Product Description

The Global Water Flow Probe is a highly accurate water velocity instrument for measuring flows in open channels and partially filled pipes. The water velocity probe consists of a protected water turbo prop positive displacement sensor coupled with an expandable probe handle ending in a digital readout display. The water flow meter incorporates true velocity averaging for the most accurate flow measurements. The Flow Probe is ideal for storm water runoff studies, sewer flow measurements, measuring flows in rivers and streams, and monitoring water velocity in ditches and canals.

### Turbo-Prop Sensor

The Flow Probe incorporates the unique Turbo-Prop propeller sensor, which uses the most accurate positive displacement technique available for velocity sensing. The Turbo-Prop is designed to shed debris and is protected inside a 2 inch diameter housing. The probe housing may be placed directly on the bottom of a pipe or streambed for measuring low flows down to 2 inches in depth. The flow meter propeller rotates freely on its bearing shaft with no mechanical interconnections for minimal friction. Magnetic material in the propeller tip passes a pickup point in the water velocity meter handle producing electrical impulses that are carried to the readout display by an internal cable. The Turbo-Prop is easily removed for cleaning or replacement.

### Water Velocity Computer

The water velocity computer receives an electrical signal from the propeller, amplifies the signal, and converts the reading to feet per second (or meters per second, depending on programming). The large LCD screen displays average, minimum, and maximum water velocity readings. Up to 30 sets of minimum, maximum, and average data readings can be stored in the water velocity computer. These data points can be reviewed on the computer screen for later analysis. The water velocity computer has a water-resistant housing and incorporates a unique four-button operation for changing functions and resetting the display. The water velocity computer is powered by a non-replaceable battery that will last approximately **five years** with normal use.

### Flow Probe Handle

The Flow Probe handle can telescope from 3.7 feet to 6 feet in length (FP111), 5.5 feet to 15 feet (FP211), or 2.5 feet to 5.5 feet (FP311). The handle is constructed of anodized aluminum for light weight and long life. The 15 foot length of the FP211, Flow Probe, allows for measuring sewer flows from street level and measuring stream flows from low bridges, Flow Probe is ideal for carrying into remote flow monitoring areas.

### True Velocity Averaging

The Flow Probe can be used to measure the true average water velocity of a channel's flow. As long as the turbo-prop sensor is in the water flow, the computer will average the water velocity. One reading is taken per second, and a continuous average water velocity is displayed. To obtain the true average velocity the flow probe should be slowly moved throughout the cross sectional area being measured. Once the reading becomes steady, the true average water velocity of the cross sectional area is obtained. This allows for highly accurate flow measurements, which average the differences in velocities that occur throughout a flow's cross-section and with water surges over time. The average water velocity can be saved by pressing the SAVE button and reviewed later.



## Technical Specification

**Range :** 0.3-19.9 FPS (0.1 - 6.1 MPS)

**Accuracy :** 0.1 FPS

**Averaging :** True digital running average. Updated once per second.

**Display :** LCD, Glare and UV Protected

**Control :** 4 button

**Datalogger :** 30 sets, MIN, MAX, and AVG

**Features :** Timer, Low battery warning

**Sensor Type :** Protected Turbo-Prop propeller with magnetic pickup.

**Weight :** (3 lbs. (1.4 kg))

**Shipping :** 13 lbs. (5.9 kg) (FP111)

**Expandable Length :** 3.7 to 6 ft , (1.1 to 1.8 m)

**Materials : Probe:** PVC and anodized aluminum with stainless steel water bearing

**Computer:** ABS/Polycarbonate housing with polyester overlay

**Power :** Internal Lithium Battery, Approx 5 year life with typical use, Non-Replaceable

**Auto Shutoff :** After 5 minutes of inactivity

**Operating Temperature :** -4° to 158° F (-20° to 70° C)

**Storage Temperature :** -22° to 176° F (-30° to 80° C)

**Carrying Case :** The Flow Probe is shipped in a padded carrying case.

**Approvals :** CE

### Ordering Information Options:-

**FP111 Flow Probe (PN# BA1100) :** (3.7 to 6 ft handle) including carrying case.

**FP211 Flow Probe (PN# BB1100) :** (5.5 to 15 ft handle) including carrying case.

**FP311 Flow Probe (PN# BC1100) :** (2.5 to 5.5 ft handle) including carrying case.

**FP111-S Flow Probe (PN# BA1110) :** (3.7 to 6 ft handle w/swivel) including carrying case.