

Current Meter Counter

WATER FLOW | SURFACE WATER

General Description

The HyQuest Solutions Point Velocity Display PVD100 is a small electronic device for **measuring flow velocity from almost any mechanically rotating current meter**. It shows the velocity on its LCD directly in m/sec or ft/second. To calculate discharges, serial data can be transmitted to an external computer. A very important feature is the **automatic detection of signal shorts** accompanied by an alarm to the operator who may decide on repeating the measurement. All important settings are saved in memory, eliminating the burden of re-configuring the device when the unit is turned back on.

The PVD100 does not need to be connected to an external device to operate. The visual indicators, LCD and internal buzzer can be used to make a conventional current meter measurement and to compute water velocity.

Cleaning signals and avoiding noise

The PVD100 cleans the signal from a mechanically rotating current meter such as a Price AA, HS OSSB1 or HS OSS-PC1 meter. Thereby, miscounting and double counting are avoided.

Connectivity

The PVD100 offers connectivity between the current meter and a hand-held computer using either a connecting lead or an optional Bluetooth® wireless interface. It can be mounted directly onto a top-setting wading rod. Faulty connections are detected. Commands for performing a measurement and making operating selections can be sent.

Extended Measurement Range

The PVD100 can operate in two different velocity range modes supporting both typical and extremely slow rotating current meters (see Technical Specifications).

Main Features

- Direct velocity reading
- Digitally processes and cleans signals from catwhisker and magnetic head meters
- Works in high conductivity water (> 50,000 µSiemens)
- Self-contained unit with 2 x 8 character LCD display showing total meter counts and elapsed time
- Operates with any field computer
- Signal Driver for AquaCalc(s), Sutron DMX and HyQuest Solutions CMC Series meter counters
- Fully self calibrating
- 'Self Test' for serial interface setup
- Can be used to adjust current meter contacts (measures meter 'dwell angle')
- Can display and produce 'spin test' record



Applications

- Counter for water velocity and water flow measurements with current meter in small and big water courses and open channels
- Counts are usable as input data for discharge calculation.
- The device counts contacts closures or electronic switched pulses.

Please ask for details.

Technical Specifications

Velocity Precision	0.001 m/sec or 0.01 ft/sec
Timing Accuracy	+/- 0.001 s
Velocity Range	0.015 m/sec to more than 6.1 m/sec slow-speed mode: improves measurements with extremely slow rotating current meters (velocities less than 0.076 m/sec)
Operating Conditions	-5 °C to +50 °C, non condensing, IP65
Bluetooth®	Optional, Class 2 / Output power 2.5 mW (4 dBm), compliant Bluetooth® Spec V1.1, up to 10 m (30 ft) range (operating at 2.4 GHz)
Communications	RS232 Port (Tx, Rx) @ 19200 baud 8/N/1
Power Source	2 x Internal AA alkaline 1.5V batteries (not included) Low battery indication 2.8V Hibernation after 5 min
Dimensions	120 mm x 80 mm x 22 mm (L x W x D)
Mass	218 grams (with batteries)

Accessories



OSSB1:

The OSSB1 **universal current meter** is a world recognised instrument for measuring the velocity of water

in open and closed channels. Made of high grade 316 stainless steel, it is suitable for the most extreme environments.



OSSPC1:

The OSSPC1 **miniature current meter** is a world recognised instrument for measuring the velocity of water **in**

shallow open and closed channels. Made of durable materials, the OSSPC1 is suitable for extreme environments.



Red Back:

The RB1 is a **cup-type current meter.** Its advanced contact switching system allows the measurement of water

flow in streams, open canals, pressure pipes, lakes and seas to a fine degree of accuracy and repeatability.



Wading Rods:

HyQuest Solutions' range of top setting wading rods were developed to simplify the task of carrying out

gauging in small streams. We are happy to provide help in choosing the proper rod depending on your application and equipment.



Under Ice Rod:

The HyQuest Solutions Under Ice Rod has been designed specifically for deployment of various brands of ADCP and mechanical current meters for 'under ice' discharge measurements.

Please ask for details and application examples.

Reseller

HyQuest Solutions Australia

✉ sales@hyquestsolutions.com.au
🌐 www.hyquestsolutions.com

HyQuest Solutions New Zealand

✉ sales@hyquestsolutions.co.nz
🌐 www.hyquestsolutions.com

HyQuest Solutions Europe

✉ info@hyquestsolutions.eu
🌐 www.hyquestsolutions.eu

