

Current Meter Counter

WATER FLOW | SURFACE WATER

General Description

HyQuest Solutions' Point Velocity Display PVD200 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/sec. PVD200 **detects signal shorts automatically** and alerts the operator who may decide on repeating the measurement. The device **supports up to six current meters**, each with three equations.

PVD200 is **self-contained** and does not need to be connected to an external device. The visual indicators, LCD and internal buzzer can be used to make conventional current meter measurements and to compute water velocity. Above that PVD200 can **transmit serial data** using a wireless **bluetooth interface** to an external tablet for discharge calculation, etc.

PVD200 is very **easy to use** and yet **versatile** enough to offer selections to operate in a wide variety of scenarios and field settings. The equations of the current meters can be entered easily via two pushbuttons and a backlit graphic LCD. The slow-speed mode supports extremely slow rotating current meters.

Very accurate measurements by cleaning signals and avoiding noise

PVD200 filters and cleans incoming noisy signals from any contact closer, e.g. cat-whisker and magnetic head meters. The **very clean, noise-free signals** allow correct counting of the revolutions and thus the more accurate determination of the flow velocity.

Main Features

- Works in high conductivity water (>50,000 μ Siemens), too
- Robust waterproof enclosure
- Available as neck or top set rod mounted
- Operates with HydroTab tablet and field computers
- Fully compatible with USGS QCALC Discharge Measurement Software
- Fully self-calibrating
- Can be used to adjust current meter contacts (measures meter 'dwell angle')
- Can display/produce 'spin test' record
- When used with HyQuest Solutions' GFD (Ground Feeler Device): Audible beep by PVD200 when the Columbus weight makes contact with the stream bed

Applications

- Water velocity and water flow measurements with current meters in small and big water courses and open channels
- Using counts as input data for discharge calculation
- Digital processing and cleaning of signals from catwhisker and magnetic head meters
- Counting contacts closures or electronic switched pulses



Technical Specifications

Velocity Precision	0.001 m/sec or 0.01 ft/sec
Timing Accuracy	+/-0.1 s
Velocity Range	<ul style="list-style-type: none"> ■ 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, IP66+, temporary immersion
Bluetooth®	Class 2, output power 2.5 mW (4 dBm), compliant Bluetooth® V1.1 (operating at 2.4 GHz)
Communications	RS232 Port (Tx, Rx) @ 19200 baud 8/N/1 (for reload of new firmware only)
Connections	2 x Banana plug sockets (meter input)
Visual Indicators	<ul style="list-style-type: none"> ■ 128x64 graphics LCD, backlit ■ 1x orange LED, 1 x red/green/blue LED
Power Source	<ul style="list-style-type: none"> ■ 3 x Internal AA alkaline 1.5 V batteries (not included) ■ Low battery indication 2.8 V ■ Hibernation after 5 min
Dimensions & Mass	140 x 80 x 50 mm (L x W x D), 400 g (with batteries)

Accessories



OSS-B1 and OSS-PC1:

The OSS-B1 **universal current meter** and the **miniature model** OSS-PC1 are world recognised instruments for

measuring the velocity of water **in open and closed channels**. Made of durable materials like high grade 316 stainless steel, they are suitable for the most extreme environments.



Wading Rods: HyQuest Solutions' range of top setting wading rods were developed to simplify the task of gauging in small streams. We

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



HydroTab Stream Gauging

Computer: Assembly of HydroTab software and a tablet suitable for harsh and wet environments. Used for direct water velocity measurements, or collecting, calculating, displaying and emailing full river gauging data.



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.

Under Ice Rod: 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.



Ground Feeler Device GFD:

HyQuest Solutions' GFD was developed for winches (including the Hornet cableway system). It is located between the winch cable connector and gauging

weight. When the weight strikes the stream bed the GFD creates a short circuit in the Amergraph cable. This produces a beep from the PVD200 connected to alert the hydrographer.

Please ask for details.

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

