

Current Meter

WATER FLOW | SURFACE WATER

General Description

HyQuest Solutions' Redback is a **cup-type current meter** for the measurement of water flow in open and closed waters to a **fine degree of accuracy and repeatability**. This is due to its advanced contact switching system and interchangeable bucket system that provides trouble free operation.

The Redback is made to be used in the **most extreme environments** and ensures reliable field service for many years.

The current meter is supplied in a user-friendly kit, allowing the operator to measure water flow using a simple traditional method.

Applications

Redback allows the measurement of water flow in **streams, open canals, pipes, and seas** to a fine degree of accuracy and repeatability.

Features

- Robust construction
- Interchangeable buckets in case of damage
- High accuracy (+/-1 %)
- Advanced contact switching system
- Wide measurement range
- Durable tungsten tip pivot and bearing assembly for long lasting replicated motion
- Velocity displayed directly with HyQuest Solutions' counters CMC20A, CMCSp, PVD100, PVD200 or HTB01/CMCbt HydroTab Stream Gauging Computer (see flipside)



Technical Specifications

Construction	<ul style="list-style-type: none"> ■ Cast brass body, nickel plated ■ 6 durable glass filled nylon buckets ■ Stainless steel bucket wheel frame ■ Stainless steel pivot with tungsten carbide tip
Operating Velocity Range	0.025 m/sec to 8 m/sec
Reed Switch	Encapsulated reed switch
Output Signal	<ul style="list-style-type: none"> ■ Voltage free digital signal ■ 1 full revolution of bucket assembly produces one pulse ■ Converted to direct velocity reading when used in conjunction with HyQuest Solutions' current meter counters (see below), e.g. PVD100, CMCsp or PVD200
Overall Accuracy	+/-1 %
Calibration and Calibration Method	<ul style="list-style-type: none"> ■ Meter supplied with batch calibration certificate ■ Individual meter calibration available on request (additional costs): <ul style="list-style-type: none"> - Calibration in accordance with AS3778.6.3/ISO 3455 standard - Up to 3 line fit - Supplied with calibration and a rating table - Calibrated over full velocity range
Carry Case	Heavy-duty case with durable moulded foam
Basic Kit (scope of delivery)	Bucket meter, screw driver, 2.5 m connecting lead, calibration certificate and table, 30 ml of current meter oil
Dimensions and Mass	500 x 390 x 190 mm; 5 kg

Accessories



Current Meter Counters (various models): Features: waterproof enclosures, simple button controlled menus, embedded LCDs and beepers to make counts audible. Improved accuracy due to signal conditioning. Bluetooth interfaces for use with HydroTab Stream Gauging Computer available.



Gauging Weights (Columbus model): Protects current meter against heavy

debris damage, streamlined shape reduces resistance to flowing water.



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.



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.



Winches (WS250, WS400, WS500):

Hand-operated single drum winches capable of handling Columbus gauging weights up to 70 kg using the four wheel bridge crane 4WBC. The winches are designed for ease of operation in the field: compact, portable, light-weight, and handled easily and safely by one person.

Please ask for details.

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