

**Current Meter
Model RB1**

The RedBack



INTRODUCTION

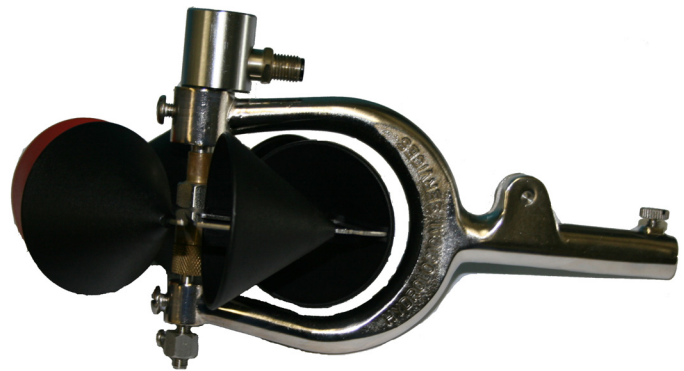
Special points of interest:

- Robust construction
- Interchangeable buckets in case of damage
- High accuracy $\pm 1\%$
- Advanced contact switching system
- Minimum starting velocity 0.025m/s
- Maximum Velocity 8.0m/s
- Durable Tungsten tip pivot and bearing assembly for long lasting replicated motion
- Direct velocity reading when used in conjunction with the CMCsp, PVD100 or HydroMate

The Hydrological Services Red-Back current meter is our new generation cup-type current meter. It allows the measurement of water flow in streams, open canals, pressure pipes, lakes and seas 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 meter is made to be used in the most extreme environments and ensures reliable field service for many years.

The RedBack is supplied in a kit which is affordable and user friendly, allowing the operator to measure water flow using a simple traditional method.



**RedBack
MODEL RB1**

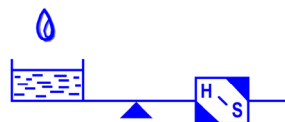
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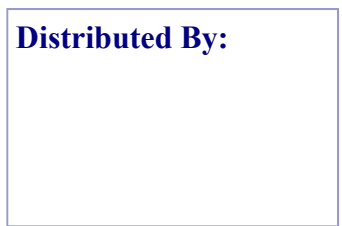
**Designed & Manufactured
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Specifications

Construction:	- 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 :	- Voltage free digital signal - 1 full revolution of bucket assembly produces one pulse - Converted to direct velocity reading when used in conjunction with our PVD100, CMCsp or Hydro-Mate
Overall Accuracy :	± 1 %
Calibration :	- Meter supplied with batch calibration certificate - Individual meter calibration available on request ; additional cost applies
Calibration Method If Calibration is Requested :	- Performed 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 :	- Bucket Meter - Screw driver - 2 m connecting lead - Calibration certificate and table - 30 mls of current meter oil - CD Instruction Manual
Dimensions :	Length 500mm Width 390mm Height 190mm
Mass :	approx 5 kg

Operation

The standard operation of the current meter is used in conjunction with a wading rod and a current meter counter. This method requires the user to stand in the stream and observe the velocities of the flow at different depths across the streams.

The current meter can be fitted with a stabiliser tail fin which is attached to a hanger bar attached and Columbus gauging weight in sizes of 7, 15, 23, 34, 45, 68, 90 or 135 Kg. This assembly is suspended from a gauging winch with armoured signal cable.

Hydrological Services provides a range of counters to suit the RedBack. The models available are as follows:

Model CMC20A is a basic counter which can be set to count pulses for a specific time period (10-200 secs). The counter stops when the time period has elapsed and shows a digital reading for the number of pulses. A rating table is used to convert number of pulses to velocity.

Model CMCsp current meter counter with direct velocity reading, in-built Bluetooth module for connection to a Palm™ top or field PC, fixed measuring interval from 10 to 90 secs.

Model PVD100 same functions as the CMCsp but supplied in plastic case and neck straps.

The HydroMate CMC3 is the top of the range Current Meter Counter with a touch screen facility and direct velocity reading. This counter allows up to 32 current meter calibration formulas to be entered so that direct calculation of river flow can be achieved. The HydroMate CMC3 can store data for up to 30 sites with 30 verticals per site and 11 points per vertical. The CMC3 software can be easily upgraded as new features are made available.

Optional Accessories

- Tail fin
- Top set wading rod
- Wading rods
- Wading rod adaptor (Part No. WR18)
- CMC20A Current Meter Counter
- CMCsp Current Meter Counter
- PVD100 Current Meter Counter
- HydroMate Current Meter Counter
- Head phone kit Model HPK
- Gauging Weights
- Gauging Winches