

Current Meter Counter

WATER FLOW | SURFACE WATER

General Description

HyQuest Solutions' current meter counter CMC20A is an enhanced version of the proven model CMC20 which is used with the majority of propeller current meters. CMC20A is a **self-contained instrument** featuring

- microprocessor control circuitry,
- a quartz time base,
- a high temperature liquid crystal display (LCD), and
- a buzzer.

This simple counter **displays the accumulated pulse count for a range of preset time periods**. The display gives continuous indication of the pulse count during the course of the reading period. It indicates with a resolution of 1. The maximum number of counts is 9999.

An internal buzzer sounds at each contact closure to indicate correct operation. When used for integrating depth measurements with a ground-feeler weight, the buzzer

sounds continuously while the contacts are closed and counting continues (infinity mode) until interrupted manually by the stop switch.

Main Features

- Accurate timing: timer starts at the first contact closure
- User selectable contact debounce time
- Counts up to 40 pulses per second
- Battery voltage displayed on power up
- Designed to USGS specifications
- Robust construction, submersible
- Adjustable neck strap

Applications

- Water velocity and water flow measurements in small and big water courses and open channels
- Field calibration of tipping bucket rain gauges (counting bucket tips)



HyQuest Solutions' Range of Current Meter Counters

HyQuest Solutions offers various current meter counters from the simplest model to advanced versions with enhanced features. They provide waterproof enclosures, simple button controlled menus, embedded LCDs and beepers to make counts audible. The sampling period can be pre-set or manually stopped. Further options: calculation and direct display of velocity, signal conditioning for improved accuracy, data transmission via bluetooth interface to HydroTab Stream Gauging Computer or other external PCs for discharge calculation. We are happy to provide help in choosing the proper device for your application.

Technical Specifications

Housing	Submersible powder coated aluminium die cast case, nylon webbing adjustable neck strap
Display (LCD)	4 digit high temperature liquid crystal display rated to 80 °C
Accuracy	±0.1 seconds (timed from first contact closure); ±1 pulse
Timer	Quartz crystal accuracy, better than 1 in 20,000
Preset Facility	Time intervals of 10, 20, 30, 40, 50, 80, 100, 200 seconds, and infinity
Infinity Mode	For depth measurements with ground-feeler weights, manual operation of counter or integration measurements
Operating Conditions	Temperature range: -20 °C to +70 °C; Humidity: 0 - 100 %
Contact Debounce	<ul style="list-style-type: none"> ■ The current meter pulse is debounced in software. ■ Debounce time user selectable 1, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 35, 40, 45 ms (useful for a meter with a mechanical "cat whisker" contact wire)
Buzzer	<ul style="list-style-type: none"> ■ Instantaneous beep for each current meter pulse (except in the infinity mode) ■ Infinity mode: continuous beep while the current meter switch or ground feeler weight switch is closed
Power Supply	<ul style="list-style-type: none"> ■ 9 V DC - 6 AA alkaline batteries (or 6 AA nickel metal hydride NiMh) ■ Actual battery voltage displayed for 2 seconds each time the counter is switched on ■ Low voltage indicated by all decimal points showing on the display at 5.8 volts
Dimensions & Weight	<ul style="list-style-type: none"> ■ 160 x 100 x 55 mm (6.3 x 3.9 x 2.2 "), 1 kg (2.2 lbs) ■ Packed: 260 x 195 x 160 mm (10.2 x 7.7 x 6.3 "), 1.3 kg (2.9 lbs)

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.



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.



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 continuous beep from the CMC20A connected to indicate that the device is counting.

Please ask for details.

Reseller

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