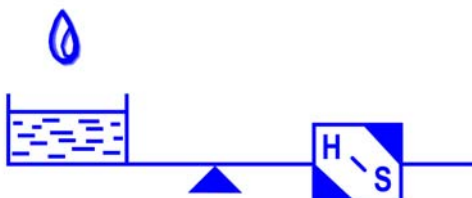


CURRENT METER COUNTER MODEL CMC20A



Current Meter Counter
Model CMC20A

- Accurate Timing - The 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
- High Temperature LCD Display
- Designed To USGS Specifications
- Robust Construction & Adjustable Neck Strap



Hydrological Services Pty Ltd
Sydney, Australia



CERTIFIED QUALITY
MANAGEMENT SYSTEM
— ISO9001 —

DESCRIPTION:

The CMC20A is an enhanced version of our proven CMC20 which is used with the majority of propeller current meters. Being a self-contained instrument featuring microprocessor control circuitry, a quartz time base and a high temperature liquid crystal display. The counter is powered by 6 x AA size alkaline batteries.

Battery voltage below 5.8 volts is indicated by the display of decimal points. An internal buzzer sounds at each contact closure during the timing period to indicate correct operation.

The display on the CMC20A gives continuous indication of the pulse count during the course of the reading period - and indicates with a resolution of 1 to a maximum of 9999 counts.

OPERATION:

The CMC20A operation depends on four major functions which can be illustrated as follows:

ON/OFF Switch:

It is used to turn the counter on. However, timing will not start till the first contact closure is detected.

Start Button:

Resets the display and prepares for the preset time interval. (The colon on the display indicates that start has been pressed)

Note : Timing commences on the first detected contact closure. The count will not increment on the first closure, only subsequent closures. This ensures that timing is accurate.

Stop Button:

Stops further counting - and allows the counter to be reset and restarted by the Start switch.

Rotary Switch:

Selects a range of preset time periods and the integrate mode for use with ground-feeler weights.

This robust counter displays the accumulated pulse count generated by the current meter for a range of preset time periods. Each pulse represents a full revolution by the propeller. "INT" mode is included for depth measurements with ground-feeler weight. In this mode the buzzer sounds continuously while the contacts are closed and counting continues until interrupted manually by the "Stop" switch.

SPECIFICATIONS:

Housing: Submersible powder coated aluminium die cast case with nylon webbing adjustable neck strap.

Dimensions: 160 x 100 x 55mm (6.3" x 3.9" x 2.2")

Weight: 1 Kg (2.2 lbs)

Display: 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 and infinity seconds.

Infinity Mode: INT. This mode is used for depth measurements with ground-feeler weights, manual operation of counter or integration measurements

Operating Temperature: -20°C to 70°C

Humidity: 0 - 100%

Contact Debounce: The current meter pulse is debounced in software. The debounce time is user selectable. (1, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 25, 30, 35, 40, 45ms) This is useful for a meter with a mechanical "cat whisker" contact wire.

Buzzer: Instantaneous beep for each current meter pulse except in the integrate mode - in this mode, the buzzer gives a continuous beep while the current meter switch or ground feeler weight switch is closed.

Power Supply: 9V DC - 6 AA Alkaline batteries (or 6 AA Nickel Metal Hybrid). The actual battery voltage is displayed for 2 seconds each time the unit is switched on. Low voltage is also indicated by all decimal points showing on the display at 5.8 volts.

Packed Dimensions: 260 x 195 x 160mm (10.2" x 7.7" x 6.3")

Packed Weight: 1.3 Kg (2.9 lbs)

Note: Specifications are subject to change at anytime without notice.

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