



SERFILCO®

SERIES 2000 and 8000 AMP-TIME TOTALIZER/CONTROLLER

SB-42B

When connected to a direct current shunt or multiple shunts (up to eight), the controller calculates total integrated plating current over time to provide totalized Ampere-Hours or Ampere-Minutes on a digital readout. An output is also generated to control a chemical addition pump proportional to total plating current for the precise addition of brightener or other chemicals. The field programmable unit can be set up to provide direct readout in Ampere-Hours or Ampere-Minutes from wide range of direct current shunts. Input operating power is 120 VAC or 240 VAC, 50/60 Hertz. Ease of field programming via key pad input and simplified operation are outstanding features.

Each shunt input signal is isolated electrically from each other to prevent 'ground loop' problems when connecting to multiple shunts. Up to eight shunt inputs can be connected - the unit totalizes all inputs and controls the chemical pump proportional to the total input current. A manual reset button allows resetting the totalizer readout to zero.

The front panel display allows reading either accumulated Ampere-Hour/Minute or preset readings. A battery back-up allows maintaining the values in both registers in the event of temporary input power interruption.

Display: Eight (8), 0.82 inch high seven segment LED Resolution +/- one digit. Power loss does not affect last totalizer reading.

Status Indicators: 8-digit Display LED show power is applied. Ampere-Hour or Ampere-Minute LED shows display units. Program LED shows unit is in programming mode and not running. Preset LED shows a preset event has occurred. Output LED shows the chemical pump is turned ON. Low liquid level LED shows the chemical supply level is low causing the alarm relay to operate.

Accuracy: +/-0.5% and +/-one count over a range of 1% to 150% of connected shunt rating with ambient temperature range of 40 to 120 Degrees F. Does not include shunt accuracy. Totalizer accuracy maintained with input voltage variation of +/-20% and frequency variation of 45 to 100 Hertz. Input impedance 500,000 ohms. Low pass filter included on shunt inputs to prevent errors due to electrical noise interference. Calibrated shunt leads are not required.

Programming: Keypad data input for user programming shunt current rating, Ampere-Hour or Ampere Minute totalizing, and preset values.

Input Voltage: Selectable 120V/1/50-60 or 240/1/50-60 VAC. Fused Input.

Control Output: Relay contact closure, SPOT, 10 Ampere N.O/N.C. may be connected for percentage ON/OFF control for operating motor driven pumps directly. Percentage (10%-100%) cycle reset time is one minute.

Preset function is included to allow turning OFF the chemical pump after a preset Ampere Hour/Minute quantity has been measured by the controller. Besides disabling the chemical addition pump, the unit provides a dry contact alarm contact closure. A manual reset button, with remote operation capability, resets the alarm preset/alarm function.

Electrical terminals are provided to disable the unit in event of low chemical liquid level. The low liquid event signal causes the alarm relay to operate.

Enclosure: Heavy duty gasketed fiberglass enclosure with sealed window, stainless steel hinge and latches. NEMA type 4X rating provides watertight and corrosion resistant protection. Liquid tight, non-metallic electrical cable fillings allow access to the internal terminal strip for all connections. 9.5" x 11.5" x 5" with two integral top / bottom mounting feet for wall mounting.

Chemical Pumps: Various types can be connected. Besides a 100 millisecond (ON-time) contact closure signal for controlling one or two electronic pulsed pumps, the controller also generates percentage time-on contact closure to operate one or two ON - OFF pumps for proportional control.

Two 3-prong female receptacles for pump power are provided on the enclosure for ON-OFF Pump connections. Two 4-pin connectors are included for electronic pulsed pump connection.

SERIES 2000: Monitors one or two rectifiers on one tank.

SERIES 8000: Monitors one to eight rectifiers on one tank.

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