UP/DOWN AMP-HOUR CONTROLLER

With Preset and Limit

MODEL 806

FEATURES

- Controls Plating/Signal Process
- Uses Standard 50mV Shunts
- 6 Digit 1/2" (13mm) Display
- Programmable Decimal Points
- Latchable Preset
- Latchable Limit
- Latchable Overflow
- 3T BCD TTL or CMOS
- Schmitt Trigger/Debouncer
- Relay Outputs
- Splash Proof Cover
- 1/4" DIN Aluminum Case

DESCRIPTION

Using the 800 Main Frame with a plug-in board, the 806 is capable of indicating and controlling the *BATCH* or total current consumed by a process. Of course, since the 806 works in the principle of converting a D.C. Millivolt signal to a train of pulses which are added or substracted from a starting point (anywhere on the scale) and comparing this total to a preset limit. Process such as *Plating, Light Integration,* Flow/Time, Etc. are easily controlled. The 806 integrates a signal versus time and if the time is known, the 806 can be used as a totalizer or averager by dividing the count by the time.

(See Model 800 for additional description.)

The 50mV Range is standard, but other ranges are easily implemented. Contact the factory for your particular needs.

CONNECTIONS

All the rules of the Model 800 apply (see pages 1 to 3) except the following: *Pin 16B* + Input. This is the most positive signal with respect to Pin 1B which is the most negative signal (Digital Ground). When using IMC's Internal Power Supply, its primary to secondary isolation is 1200V RMS. *Pin 18B* is the A-HR Output Frequency and must be externally connected to counter input *Pin 18A* or can be externally switched so the 806 can be used as an Up/Down Counter and integrator as well.

Contact IMC for current *Shunts.*

CALIBRATION

The 50mV Range is calibrated as follows: C = K X H = 1000; where C = Number of Counts Displayed; K = 50 m Vdc Constant Signal and H = 1 Hour; so, if a 50 m Vdc Signal remains constant for one hour, the display will read 1000 A-Hour. In this case, the 806 has the capacity of one million Ampere/Hour. Of course, if the signal decreases or increases, the rate (counts/time) will decrease or increase accordingly. Consult factory for others.

Since the 806 can only be reset on command (see 800), the accumulated count will remain so long as power is available regardless of the signal input.

ORDERING INFORMATION

MODEL 806 X X X

BCD
0 . . . . No BCD
. . . . TTL BCD
. . . . CMOS BCD

0 . . . . Standard

POWER SUPPLY/RELAYS
0. . . . No. Power Supply (12 Vdc only)
1. . . . 12 Vdc and Relays
2. . . . A.C. Power Only (115/230 Vac)
3. . . . A.C. Power and Relays
4. . . . 12 Vdc and Triacs
5. . . . A.C. Power and Triacs
X. . . . Special (Specify)

SPECIFICATIONS

AMP-HOUR (Converter Section)

Counts vs. Input Signal	1000/HR @ 50 mV
Maximum Signal Input	10 Vrms for 2 seconds
Accuracy	±0.001% of Full Scale
Stability	±0.005%/°C of F.S.
Output Pulse	CMOS Compatible

(MAIN FRAME)

• Hold Pulse Width	3μs Min.
• Reset Pulse Width	3μs Min.
• Up/Down Setup Time	1μs Min.
• Limit & Preset Load Time	500μs Minimum
• Inputs Source Current	250μA Nominal
• Equal Pulse Width	5μs Min.
• Zero Pulse Width	5μs Min.
• Carry Pulse Width	5μs Min.
• Power Requirements	12Vdc ±10% @ 150mA
• Operating Temperature	0 to +60°C
• Storage Temperature	−20 to +80°C

INPUT DEBOUNCER

Input Source Current	750μA
Input Capacitance	5pF
Input-Output Delay	4 Clock Pulses after Last Bounce
Clock Frequency Vs Cx (internal)	f=A/Cx.

A = 1/3 Vcc. Cx in pF, Ex 50000 pF = 40 mS Delay

LATCHED OUTPUTS

Output Logic Level	"0"<3V; "1",>6V
Propagation Delay	1μs
Latch Reset Pulse	>1μs
Latch Reset Cource current	250μA

POWER SUPPLY

Input	115/230 VAC ±15% 50-60 Hz
Output	12Vdc ±10% @ 200mA

RELAYS/TRIACS

Make Time	3.0mS/.1mS
Break Time	1.0mS/.1mS
Maximum Load	1A Resistive

TRISTATE BCD

Output (CMOS)	CMOS Compatible
Output (TTL)	LPTTL 10 Loads
Output Format	8 Bit (2 Digits) or 24 Bit (6 Digits)
Input Disable	All Six Digits (memory)
Output Disable	3, Grouped in 2 Digits

See page 29 for Mechanical Specifications.