

# MODEL 805

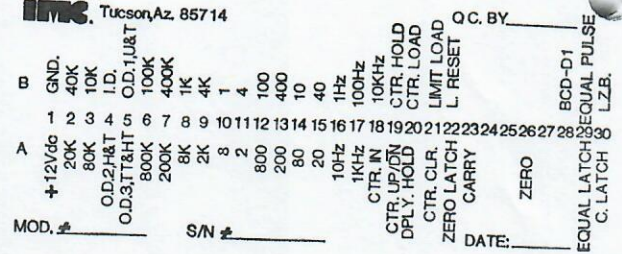
# UP/DOWN TIMER CONTROLLER With Preset and Limit



### FEATURES

- 10us to 10 Megaseconds Range
- 7 Selectable Time Bases
- 6 Decades 1/2" (13mm) LED Display
- All CMOS Construction
- 3T BCD TTL or CMOS
- Latchable Preset and Limit
- Latchable Overflow
- Relay Outputs
- 1/4 DIN Aluminum Case
- Splash Proof Cover

IMC, Tucson, Az. 85714



### DESCRIPTION

The 805 uses the same Main Frame as the 800 (see pages 1 to 3); consequently, all features are the same. What makes the Model 805 different is a plug-in board that contains a crystal oscillator buffer, six decade dividers and a Dip Switch. The base frequency is 100 KHz (others on request) which is divided to 0.1 Hz. Intermediate decade frequencies are available for internal/external use; since, the 10 KHz, 1 KHz, 100 Hz, 10Hz and 1 Hz signals are available at edge connector in addition to the internal selection by means of the DIP Switch. The Counter Preset and Limit Preset Functions (see Model 800 Description) offer additional versatility to the 805 in applications involving controlling requirements.

**Note:** For internal routing of the time base, the DIP Switch should be set with only one switch On.

### CONNECTIONS

Since the 805 uses the Main Frame of the 800, all connections apply; in addition, the following pertain to the 805 Model only.

**Note:** When using internal DIP Switch to select a frequency, this frequency is internally fed to the counter input (PIN 18A). Do not make any connections to this pin. 100 KHz and 0.1 Hz are only available for internal use. Pin 16B-1 Hz; 16A-10 Hz; 17B-100 Hz; 17A-1KHz; 18B-10KHz, outputs.

Refer to Model 800 for other connections descriptions.

### SELECTABLE FREQUENCIES

SW ON	Frequency	Resolution	Full Scale
*7	100KHz	10µs	10 Seconds
6	10KHz	100µs	100 Seconds
5	1KHz	1ms	1000 Seconds
4	100Hz	10ms	10,000 Seconds
3	10Hz	100ms	100,000 Seconds
2	1Hz	1 Sec.	1,000,000 Seconds
*1	0.1Hz	10 Sec.	10,000,000 Seconds

\*Available Internally Only (116 Days)

### ORDERING INFORMATION

MODEL 805 X X X

#### BCD

- 0 . . . No BCD
- 1 . . . TTL BCD
- 2 . . . 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 @ 25°C

- Input Frequency . . . . . dc to .5MHz
- Input Level . . . . . CMOS Logic "0" = 0-4.5V, Logic "1" = 6-12V
- Count Pulse Width . . . . . 400µs Min.
- 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
- Time Base . . . . . 100KHz Crystal
- Accuracy . . . . . ± 0.01%
- Stability . . . . . ± 0.001%
- Aging Rate . . . . . 5 PPM/Month

**Note:** Limited to 200 KHz when using BCD Output or Limit Output. Output.

### 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 Source 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.