

813 Series

Multifunction Timer

- 8 Modes of Operation
- LCD 0.3" Display
- Multi-Range Timing
- Crystal Oscillator
- Pushbutton Presetting



The 813 Timer is a multifunction control available in three different configurations. The basic control is the M, F or G mounting with one of four modes of operation slide switch selectable: Delay on Make, Single Shot, Delay on Break, and Repeat Cycle are standard. Normal and inverse relay operation is also slide switch selectable.

The 813AX model contains an instantaneous SPDT output and a delay on make SPDT output relay. Model A2 offers two SPDT delay on make outputs.

All three models offer time ranges from 001 to 999 or 00.1 to 99.9 in seconds, minutes or hours. Exceptional accuracy is achieved with a 4.19MHz crystal controlled time base. Displays are liquid crystal (LCD) 0.3" high complete with relay status indicator. Input power can be 12VDC to 240VAC in a variety of dual voltage combinations. Mounting is 48 x 48mm front panel or Din rail. Connections are 8 or 11 pin plug-in socket or screw terminals for the Din rail mounted unit.

SPECIFICATIONS:

Input Power

M, F & G 813HV	24VAC/DC, 110/220/240VAC ± 15%, 50/60 Hz
M, F & G 813LV	12VDC, 24/48VAC/DC ± 15%, 50/60Hz
AX & A2 models	12VDC, 24/48VAC/DC, 110-127VAC, 220/240VAC ± 15%, 50/60Hz

Maximum Power Consumption

813	220VAC: 7VA	48VDC: 1W
813AX & A2	220VAC: 10VA	48VDC: 2W

Output

813	SPDT Relay
813AX	SPDT Relay — Delay on Make
	SPDT Relay — Instantaneous
813A2	SPDT Relay — Delay on Make
	DPDT Relay — Delay on Make

Contact Material

Maximum Loading	5A AC	5A DC
Maximum Switching Voltage	250VAC	125VDC
Maximum Power Rating	1250VA	150W DC

Electrical Life of Relay

2 × 10⁶ at 1250VA resistive

Mechanical Life of Relay

5 × 10⁶ operations

Maximum Repetition Rate

600 operations/hour at 1250VA resistive

Time Ranges

00.1 to 999 Sec., 00.1 to 999 Min., 00.1 to 999 Hrs.

Time Base

4.194304MHz Crystal ± 100 PPM

Repeat Accuracy

± 0.1%

Reset Time

50ms during and after timing

Insulation Resistance

100MΩ min. @ 500VAC to IEC 255.5/NFC 45202

Dielectric Strength

2000VAC @ 50Hz for 1 min. to VDE 0435

Operating Temp.

+14°F to +140°F (–10°C to +60°C)

Humidity

80% non-condensing

Enclosure Material

ABS self extinguishing, UL94 grade VO

Protection Class

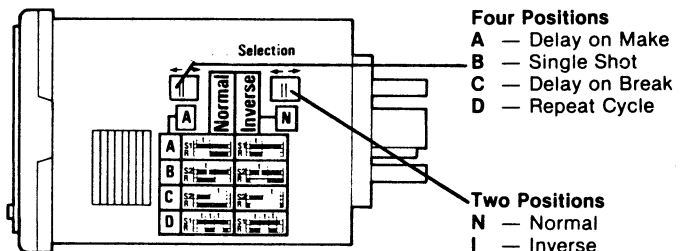
Enclosure IP50, Terminals IP20

MODES OF OPERATION

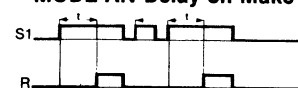
When input power is applied, the LCD indicates the time value selected. The right hand push button selector switch indicates the time increment. Time unit symbols are S = seconds, M = minutes and H = hours. Each of the three timing increments are selectable in Units (001 to 999) or tenths (00.1 to 99.9). The state of the relay is also displayed with standard NO and NC relay symbols.

813HV & LV Models

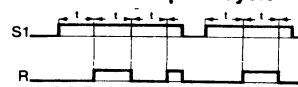
Eight functions can be programmed on the side of the timer by two slide switches. The "mode of operation" selected is displayed in the window below the Four position switch. The "Normal or Inverse" operation of the output relay is selected on the Two position slide switch. The selection or changing of a function must be done when the input power is OFF.



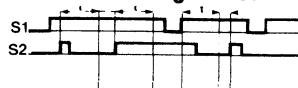
MODE AN Delay on Make



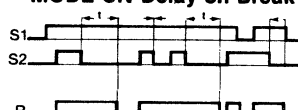
MODE DN Repeat Cycle



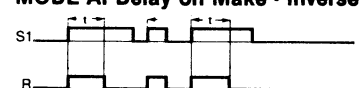
MODE BN Single Shot



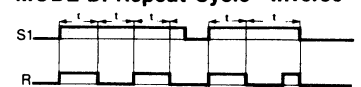
MODE CN Delay on Break



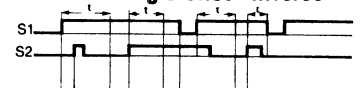
MODE AI Delay on Make - Inverse



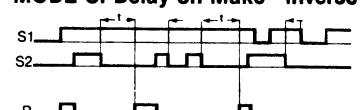
MODE DI Repeat Cycle - Inverse



MODE BI Single Shot - Inverse



MODE CI Delay on Make - Inverse



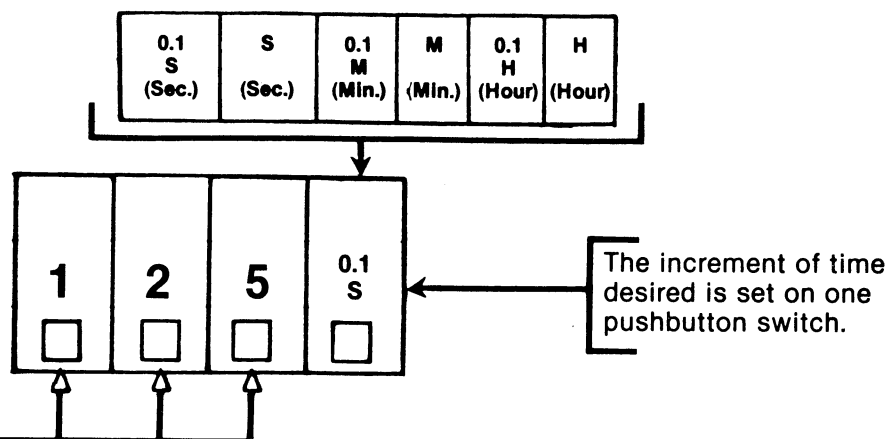
SELECTING TIME RANGE

The time value is preset by depressing pushbutton switches. Range is 001 to 999 or 00.1 to 99.9 in seconds, minutes or hours.

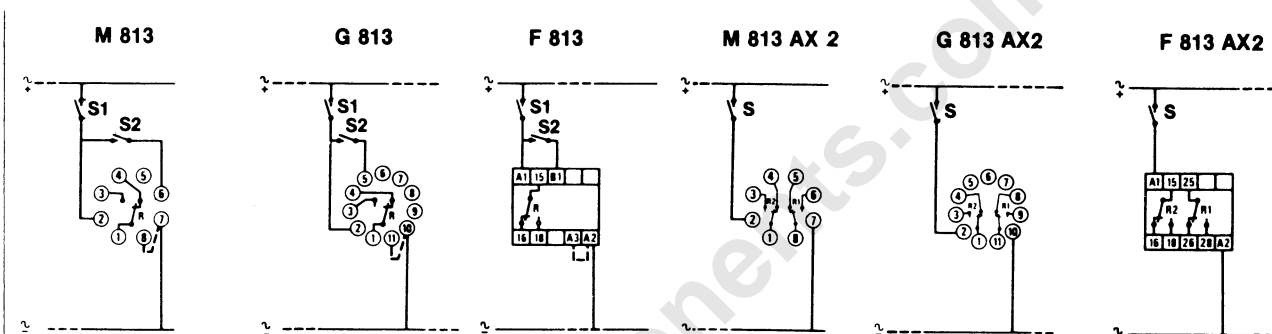
Preset time values can be changed in preparation for the next cycle during the current timing cycle.

CAUTION: It is recommended that POWER be turned OFF when changing the time increment.

Setting of 000 corresponds to infinite timing.



WIRING DIAGRAM



Note: Add jumper across 7 & 8, 10 & 11 or A2 & A3 when using 24VDC input power or 12VDC in the LV model.

Note: The contact of the initiate command S2 should be isolated from all other circuits.

ALSO AVAILABLE

813 AX2 Series — DPDT delay on make version or instantaneous SPDT and delay on make SPDT version are selectable by a slide switch in the 813 AX2 Series.

813 MT Series — SPDT delay on make version with memory backup in case of power supply failure. 240 hours of memory protection.

ORDERING INFORMATION

