812 SERIES
DELAY ON MAKE TIMER

UL listed CSA recognized

- **DIN-Sized (48 x 48mm) Housing**
- **Dual LCD Display Shows Setpoint and Actual**
- **Up or Down Timing**
- **DPDT Output Relay**
- **Popular Octal Socket Relay**

4

The 812 Timer is a Delay on Make digital timer with a DPDT output relay in the industry standard octal socket plug-in base. The series has a large, easy to read LCD display that shows actual and preset time values as well as relay output relay output status. Easy programming from front panel allows selection of eleven time ranges from.01 sec. to 9999 hours.

SPECIFICATIONS:

Input Power	110 VAC, 220 VAC, 24 VAC/DC, +10%, -15% 50/60 Hz
Input Power Consumption	0.5 W at 24 V 3.5 VA at 110 V 11 VA at 230 V
Display	Timing Display .3˝ (7.5mm) High 4 Digit LCD Preset Display .18˝ (4.5mm) High 4 Digit LCD

Output

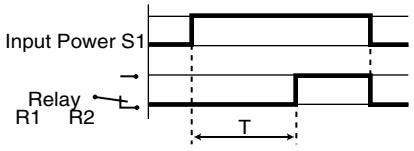
Output	DPDT
Output Rating	5 Amp/250 VAC resistive load
Maximum Power Rating	1200 VA/120 W
Min. Switch Current	100 mA
Mechanical Life of Relay	5 x 10^6
Electrical Life of Relay	10^5 at max. rated load and at 10 cycles per minute max.

Time Ranges	99.99 s	999.9 s
	9999 s	99 min 59 s
	99.99 min	999.9 min
	9999 min	99 h 59 min
	99.99 hrs	999.9 hrs
	9999 hrs	

Front Panel Rating	NEMA 12
Repeat Accuracy	±0.03%, ±20 ms
Reset Time	50 ms
Insulation Resistance	100 MΩ min @ 500 VAC to IEC 255.5
Dielectric Strength	2000 VAC @ 50 Hz for 1 min to VDE 0435
Operating Temperature	+14°F to +140°F (-10°C to 60°C)
Storage Temperature	-22°F to 150°F (-30°C to 70°C)
Weight	140 grams
Dimensions	48 x 48 x 85mm
Panel Cutout	45 x 45mm (+0.6)

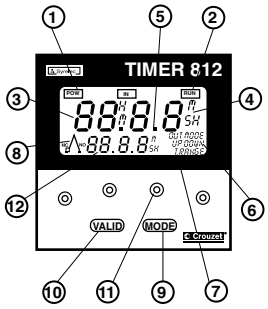
MODES OF OPERATION:

Delay on Make



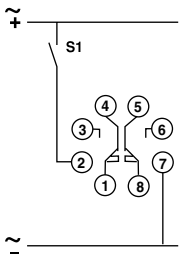
When input power (S1) is applied, the timer delay begins. DPDT relay energizes after the timing period. Interruption of input power resets timer. Timer is supplied with relay status indicator on LCD display.

PROGRAMMING:



1: Power On Indicator
2: Timing Indicator
3: Timing Display
4: Timing Range Unit
5: Decimal Point
6: Up or Down Timing
7: Timing Range
8: Relay Output Status
9: Program Mode
10: Validation
11: Preset Keyboard
12: Preset Value Display

WIRING:



ORDERING INFORMATION:

Voltage	Part Number
24 VAC/DC	88 857 409
110 VAC	88 857 406
220 VAC	88 857 400

DIMENSIONS See page 4-2

Products and specifications subject to change without notice.
Consult factory for application assistance.

815 SERIES
DELAY ON MAKE TIMER WITH MEMORY

UL listed CSA recognized

- **Retains Cycle Progress During Power Interruptions**
- **DIN-Sized (48 x 48mm) Housing**
- **2 Delayed SPDT or 1 Delayed SPDT and 1 instantaneous SPDT**
- **Up or Down Timing**

The 815 Timer is a Delay on Make digital timer with memory and can be programmed to retain cycle progress during power interruption. Output relays can be programmed either as 2 SPDT delayed outputs or 1 SPDT instantaneous output and 1 SPDT delayed output. The 815 Series has a large, easy to read LCD display that shows actual and preset time values as well as relay output status. Easy programming from front panel allows selection of eleven time ranges from .01 sec. to 9999 hrs. Termination is for 11 pin round socket.

SPECIFICATIONS:

Input Power . . . . . 110 VAC, 220 VAC, 12 VAC/DC
24 VAC/DC; +10%, -15%
50/60 Hz
Input Power Consumption . . . . . 1 W at 24 V
3.5 VA at 110 V
11 VA at 230 V
Display . . . . . Timing Display .3″ (7.5mm)
High 4 Digit LCD
Preset Display .18″ (4.5mm)
DIMESIONS: (mm) High 4 Digit LCD

Output

Output 2-SPDT
Output Rating . . . . . 8 Amp/250 VAC resistive load
Max. Power Rating . . . . . 2000 VA / 190 W
Min. Switch Current . . . . . 100 mA
Mechanical Life of Relay . . . . . 5×10^6
Electrical Life of Relay . . . . . 10^5 at max. rated load and at 10 cycles per minute max.

Time Ranges		
	99.99 s	999.9 s
	9999 s	99 min 59 s
	99.99 min	999.9 min
	9999 min	99h 59 min
	99.99 hrs	999.9 hrs
	9999 hrs	

Front Panel Rating . . . . . NEMA 12
Repeat Accuracy . . . . . ±0.03%, ±20 ms
Reset Time . . . . . 50 ms
Insulation Resistance . . . . . 100 MΩ min @ 500 VAC to IEC 255.5
Dielectric Strength . . . . . 2000 VAC @ 50 Hz for 1 min to VDE 0435
Operating Temperature . . . . . +14°F to 140°F (-10°C to +60°C)
Storage Temperature . . . . . -22°F to 150°F (-30°C to 70°C)
Weight . . . . . 140 grams
Dimensions . . . . . 48 x 48 x 85mm
Panel Cutout . . . . . 45 x 45m (+0.6)

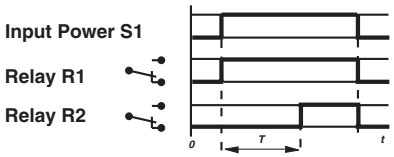
ORDERING INFORMATION:

Voltage	Part Number
12 VAC/DC & 48 VAC/DC	88 857 302
24 VAC/DC & 110 VAC	88 857 307
24 VAC/DC & 220 VAC	88 857 301

MODES OF OPERATION:

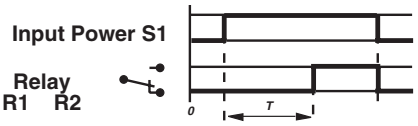
Function A1 - Delay On Make

1 SPDT Instantaneous Output (R1), 1 SPDT Delayed Output (R2)



Function A2 Delay On Make

2 SPDT Output Relays Programmed for Delayed Output



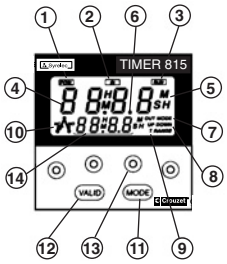
Function AM-Delay On Make-Memory During Timing Period

Timer retains cycle progress during power outage and resumes timing when power returns. Timer resets when in timed out state when power outage occurs.

Function AMt-Delay On Make-Memory During and After Timing Period

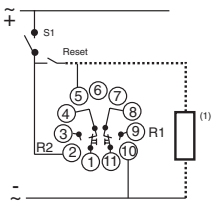
Timer retains cycle progress during power outage and resumes timing when power returns. If power interruption occurs after time out, the timer will return to the timed out state when power returns.

PROGRAMMING:



1: Power On Indicator
2: Initiate Switch Indicator
3: Timing Indicator
4: Timing Display
5: Timing Range Unit
6: Decimal Point
7: Mode of Operation
8: Up or Down Timing
9: Timing Range
10: Relay Output Status
11: Program Mode
12: Validation
13: Preset Keyboard
14: Preset Value Display

WIRING:



For 12 VAC/DC service voltage (Part Number 88-857-302) and for 24 VAC/DC service voltage (Part Numbers 88-857-307 & 88-857-301) jumper terminals 2 and 7.

1) Load, such as light bulb or contactor can be connected in parallel with the start switch.

DIMENSIONS See page 4-2

Products and specifications subject to change without notice.
Consult factory for application assistance.