



Repeat cycle timer and batch counter combined in a compact package... can control time cycle length plus number of cycles

The SX160 is a microprocessor based control that combines a repeat cycle timer with an internal batch counter. The batch counter counts the number of repeat cycle operations that the timer performs. The batch counter has its own programmable output and automatically stops the repeat cycle timer operation after the user programmed number of cycles.

The repeat cycle timer function has a SPDT relay output. The setpoints for the output ON and OFF times are individually programmable. There are eight time ranges available for the repeat timer function from 99.99 seconds to 999.9 hours.

The internal batch counter has its own SPDT relay output with two programmable operating modes. The batch counter output can operate in either an ON-Delay or Interval mode. The batch counter can be set to allow from 1 to 9999 cycles, or it can be set to provide continuous repeat cycle operation.

The SX160 is housed in a standard DIN case (68mm square cutout). The case and front bezel require minimal panel space yet provide easy to use programming keys and an easy to read .36 inch LED display.

The operating modes and time ranges for the unit are programmed using rocker switches on the back of the unit. This programming method provides both simplicity and security. The front panel display has a prompted programming routine that prompts the user when to program the ON and OFF times as well as the batch counter setpoint.

Some of the other features of the SX160 timer include:

- NEMA 4 Hosedown Test rated
- Two 5 amp SPDT relay outputs
- Two output operating modes for the repeat cycle timer
- Two output operating modes for the batch counter
- Eight time ranges for the ON and OFF time
- Time inhibit input
- LED indicators for output status
- Setpoint to zero or zero to setpoint cycle progress indication
- Front panel and remote reset inputs
- Keypad lock function
- Nonvolatile memory (NOVRAM) for program and data retention
- Removable terminal blocks for wiring connections

SPECIFICATIONS

Time Ranges:

Sym.	Maximum Range	Minimum Setting
1	99.99 Sec.	.01 Sec.
2	999.9 Sec.	.1 Sec.
3	99 Min.: 59 Sec.	1 Sec.
4	99.99 Min.	.01 Min.
5	999.9 Min.	.1 Min.
6	99 Hr.: 59 Min.	1 Min.
7	99.99 Hr.	.01 Hr.
8	999.9 Hr.	.1 Hr.

Operating Voltage/Frequency: A6 - 120 VAC, 50/60 Hz
B6 - 240 VAC, 50/60 Hz

Batch Counter Range: 1-9999 or continuous

Setting Accuracy: Time: $\pm 0.05\%$ of setting or 50 ms, whichever is larger
Count: 100%

Repeat Accuracy: Time: $\pm 0.001\%$ of setting or 35 ms, whichever is larger
Count: 100%

Reset Time: 15 ms

Power on Response: 200 ms max.

Operating Temperature: +32° to +122°F (0° to +50°C)

Sensor Power Supply: +12 VDC, 75 milliamps

Output Rating: Relay: 5 amp (resistive), 10 to 264 VAC

Vibration: Unit function is unaffected by 2.5G sinusoidal vibration magnitude in both directions of the perpendicular mounting axes imposed from 10 to 100 Hz

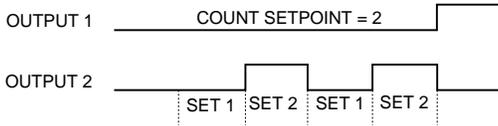
Static Discharge: Unit function is unaffected by a constant 3600 volt peak, 60 Hz discharge applied to the grounded front plate at a relative humidity of less than 25%

Transient Protection: Immune to 2500 volts peak transients up to 50 microseconds in duration

OUTPUT OPERATING MODES

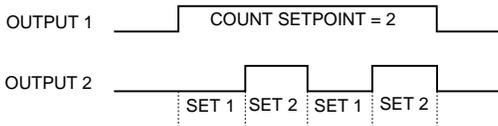
ON-Delay Counter Output Operation

Output 2 performs the repeat cycle timing operation. Output 1 energizes at the end of the programmed number of repeat operations.



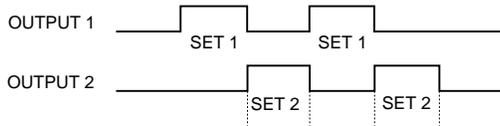
Interval Counter Output Operation

Output 2 performs the repeat cycle timing operation. Output 1 energizes at the beginning of the repeat cycle operation and remains energized until the programmed number of repeat operations is completed.

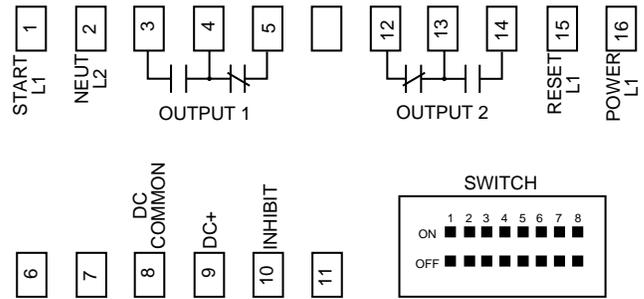


Repeating Sequence Intervals

Output 1 and Output 2 provide repeat cycle timing operation. Output 1 is on during the interval of Setpoint 1 (SET1). Output 2 is on during the interval of Setpoint 2 (SET2). The batch counter controls the number of repeat cycle operations, but does not have an output function.



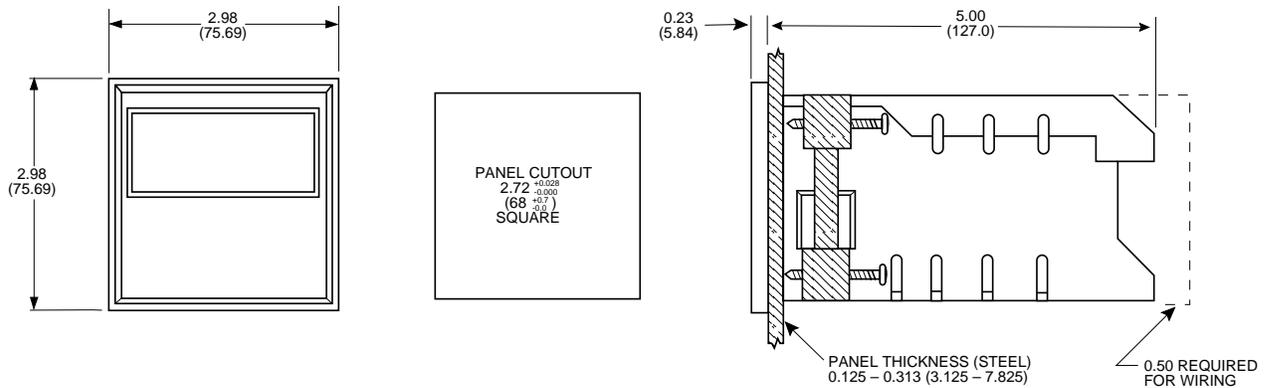
TERMINAL ASSIGNMENTS



Terminals 6, 7, and 11 are not used on the SX160 timer.

MOUNTING

The SX160 timer uses two removable mounting clips with adjustable screws to mount the enclosure in a panel as shown below.



ORDERING INFORMATION

OUTPUT TYPE		SX1	60	VOLTAGE & FREQUENCY	
Sym.	Description			Sym.	Description
60	Relay Output			A6	120 VAC, 50/60 Hz