SX210 Microprocessor Digital Timer

Economical, electronic, single setpoint reset timer... with 8 time ranges and 8 operating modes

RECOGNIZED CERTIFIED

The SX210 timer is a microprocessor based digital timer housed in a standard DIN style case (68mm square cutout). The small case and front bezel require minimal panel space yet provide large, easy to use programming keys and a .3 inch high LED display.

- Eight programmable time ranges and eight output operating modes
- Operating modes and all other setup functions programmed with miniature rocker switches located on the back of the housing
- Nonvolatile RAM memory retains setpoint, actual time values, and program parameters (10 year expected life of data in memory)
- NEMA 4 Hosedown Test rated
- Special surface just below the display on which the function can be marked with pen or pencil
- SET and ENT keys provide access to setpoint and front panel programmed functions
- Programming changes entered via increment and decrement keys
- Keypad "lock" function allows setpoint to be viewed, but does not allow unauthorized changes
- Four .3 inch red LED displays for easy readability
- Flashing LED (right side of display) indicates unit is in timing cycle and LED (left side of display) lights when programmed contacts are energized
- Two removable terminal blocks with screw gate style wire clamps permit prewiring of panel without the timer in place and eliminate rewiring if unit needs to be removed or replaced
- Two DPDT relay outputs with five amp contact ratings - one is a set of instantaneous contacts that energize when timing cycle starts and remain energized until timer is reset, and the other is a set of programmable contacts that can be programmed to turn on and off in several operating modes

SPECIFICATIONS

Time Ranges:

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

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

Setting Accuracy: ±0.05% of setting or 50 ms, whichever is larger

Repeat Accuracy: ±0.001% of setting or 35 ms, whichever is larger

Reset Time: 15 ms

Power on Response: 200 ms max.

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

Output Rating: Relay: 5 amp (resistive), 10 to 264 VAC
Current capacity derates from 7 amps at 250C to 5 amps at 500C with all output contacts used

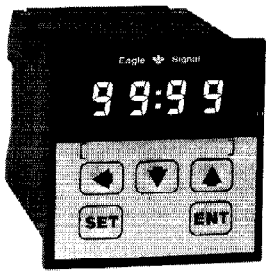
Vibration: Unit function is unaffected by 2.5G sinusoidal vibration magnitude in both directions of the perpendicular mounting axes imposed from 10 to 100 Hz

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

Approvals: UL Recognition E96337
CSA Certification LR26861

SPECIFICATIONS



The SX210 timer is a microprocessor based digital timer housed in a standard DIN style case (68mm square cutout). The small case and front bezel require minimal panel space yet provides large, easy to use programming keys and a .3 inch high LED display.

The programmable features of the SX210 timer include eight time ranges and eight output operating modes. These operating modes, and all other set-up functions are programmed with miniature rocker switches located on the back of the housing.

The SX210 timer uses a non volatile RAM memory to retain the setpoint, actual time values, and program parameters. The expected life of data in memory is ten years.

The SX210 is designed to pass the NEMA 4 Hosedown Test. The keypad includes a special surface just below the display on which the function of the timer can be marked with a pen or pencil.

The SET and ENT keys on the front panel provide access to the setpoint and to the front panel programmed functions. Programming changes are entered using the increment and decrement keys.

A keypad "lock" function is built into the software of the unit which allows the setpoint to be viewed, but does not allow unauthorized changes.

The timing cycle progress is shown on four .3 inch red LED displays for easy readability. The front panel also has a flashing LED at the right side of the display to indicate that the unit is in the timing cycle, and a LED at the left side of the display that lights when the programmed contacts are energized.

Terminal connections for the unit are made by two removable terminal blocks with screw gate style wire clamps. The removable terminal blocks permit prewiring of the panel without the timer in place, and eliminate rewiring should the unit need to be removed or replaced.

The outputs for the SX210 timer are two DPDT relays with five amp contact ratings for long life. One relay is a set of instantaneous contacts that energize when the timing cycle starts, and remain energized until the timer is reset. The other relay is a set of programmable contacts that can be programmed to turn on and off in several different operating modes.

Time Ranges

SYM.	MAXIMUM RANGE	MINIMUM SETTING
1	99.99 Sec	.01 Sec
2	999.9 Sec	.1 Sec
3	99.99 Min	.01 Min
4	999.9 Min	.1 Min
5	99.99 Hr	.01 Hr
6	999.9 Hr	.1 Hr
7	99 Min:59 Sec	1 Sec
8	99 Hr:59 Min	1 Min

Setting Accuracy
± 0.05% of setting or 50ms, whichever is larger

Repeat Accuracy
± 0.001% of setting or 35ms, whichever is larger

Reset Time
15 milliseconds

Power On Response
200 milliseconds maximum

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

Operating Voltage/Frequency

SYMBOL	VOLTAGE & FREQUENCY
A6	120 VAC 50/60 Hz
B6	240 VAC 50/60 Hz

Output Rating
Relay: 5 Amp (resistive), 10 to 264 VAC
Current capacity derates from 7 amps at 250C to 5 amps at 500C with all output contacts used.

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.

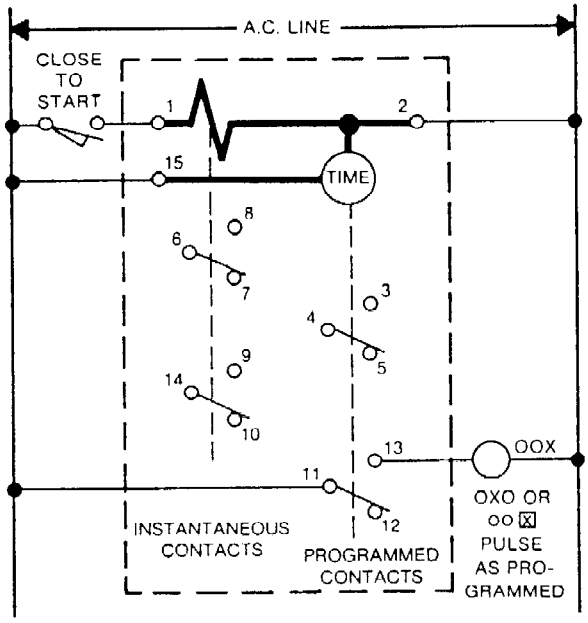
Static Discharge
Unit function is unaffected by a constant 3600 volt peak, 60 Hz discharge applied to the grounded front plate at a relative humidity of less than 25%.

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

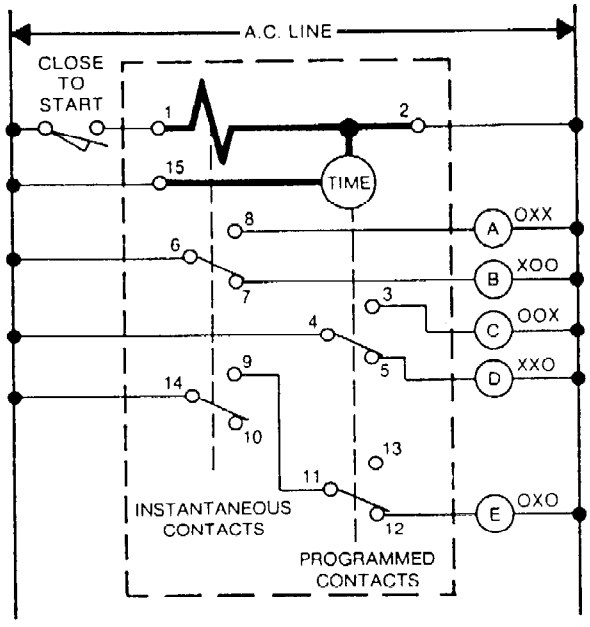
Laboratory Testing
U.L. Recognition E96337
C.S.A. Certification LR26861

WIRING DIAGRAMS

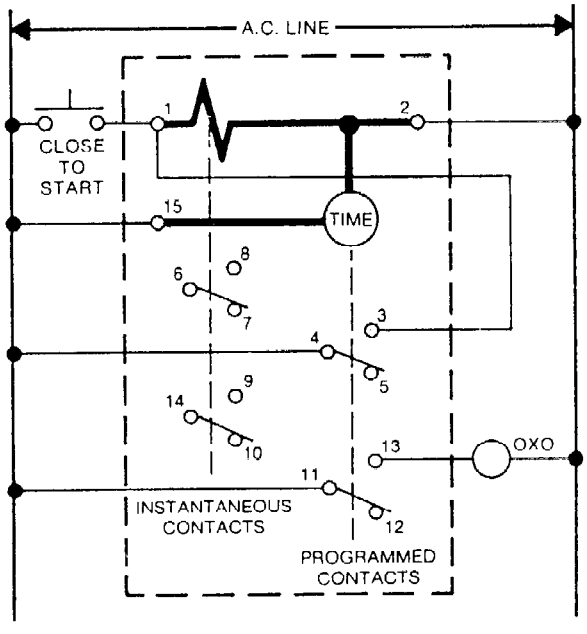
Bold Lines are Internal Wiring



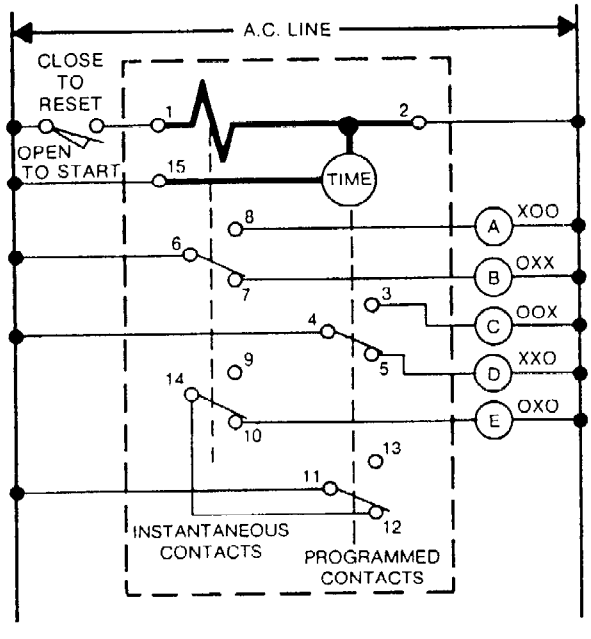
Sustained Start Input/Standard Start Mode - Close start switch to time; open to reset. Depending on mode programming, the programmed contacts will provide an OOX ON Delay, OXO Interval, OO⊠ Pulse, or OO⊠ Pulse and Repeat output.



Sustained Start Input/Standard Start Mode - Close start switch to time; open to reset. Programmed contacts set for OOX ON delay mode. Additional output combinations obtained by connecting contacts in series.



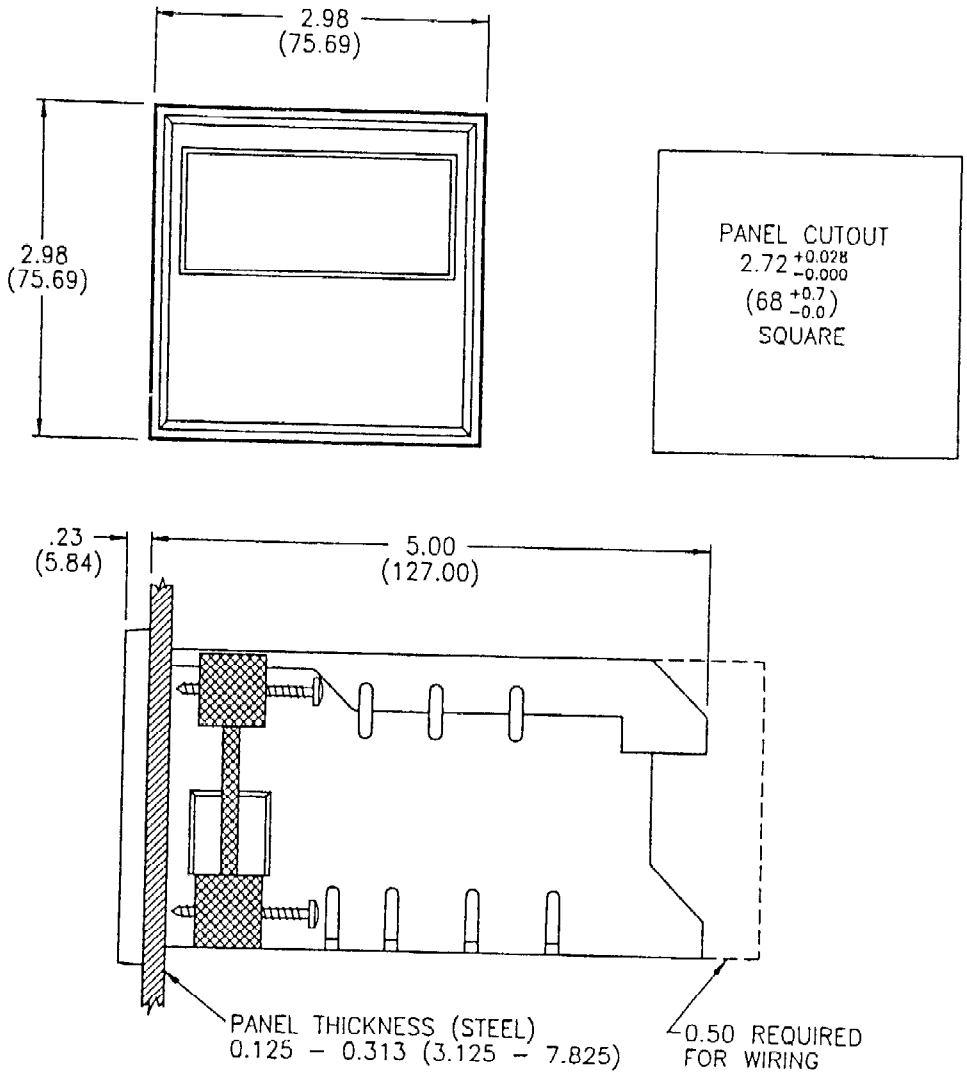
Momentary Start Input/Standard Start Mode - Close start switch to start timing; automatic reset. Programmed contacts set for OXO interval mode. Note the jumper between terminals 3 and 1 to provide "Lock In" power to the start switch.



Sustained Start Input/Reverse Start Mode - Open start switch to time; close to reset. Programmed contacts set for OOX ON delay mode. Note that power to the timer is provided through 15 when the start switch is opened. Actual cycle progress value is retained if power is disconnected from unit during the timing cycle.

MOUNTING

The SX210 counter uses two clips with mounting screws to mount the enclosure in a panel as shown below. To mount the unit, slide the gasket onto the case until it is against the back of the bezel, and place the unit in the panel cutout from the front of the panel.



ORDERING INFORMATION

SX2 10 A6

OUTPUT TYPE

SYMBOL	DESCRIPTION
10	Relay Output

VOLTAGE & FREQUENCY

SYMBOL	DESCRIPTION
A6	120 VAC 50/60 Hz
B6	240 VAC 50/60 Hz