MODEL 30

High Voltage Multi-function Timer

- 600VAC Contacts
- 240/480VAC Operating Voltage
- 4 Timing Functions
- 4 Timing Ranges

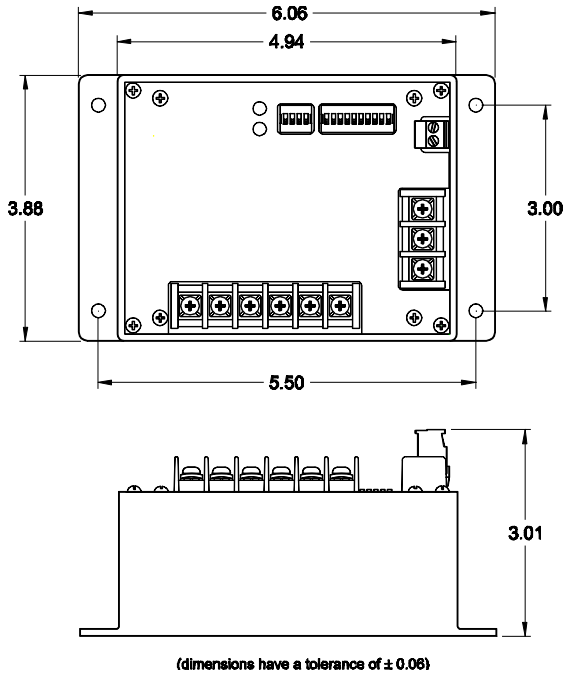
DESCRIPTION

The Model 30 is a High Voltage Multifunction Timer.

The digital design of the Model 30 provides high accuracy, repeatability and response time. The output of the Model 30 is a heavy-duty DPDT electro-mechanical output relay.

Four DIP switches select one of four timing functions and one of four timing ranges. Delay time is set with a 10-position DIP switch. When timing either the red LED will blink indicating the relay is de-energized or the green LED will blink indicating the relay is energized. On completion of the delay period either the red LED lights indicating the relay is de-energized or the green LED lights indicating the relay is energized.

DIMENSIONS



(dimensions have a tolerance of ± 0.06)

SPECIFICATIONS

MODEL	30
Voltage	240/480VAC Single Phase
Power Consumption	3.7W
Frequency	50/60 Hz
Timing Ranges	0.1 – 102.3 Sec 1 – 1023 Sec 1 – 1023 Min 1 – 1023 Hr
Accuracy	± 2% of Time Delay Setting ± 0.025 Sec
Repeatability	± 0.1%
Reset Time	1 Sec for On Delay and Interval
Initiate Switch Input	5V Open Circuit / 500µa Short Circuit
Contacts	DPDT
N.O. Contact Rating	10A, 600VAC General Purpose 1.5Hp, 480VAC or 600VAC 0.5A, 12VAC Minimum
N.C. Contact Rating	3A, 277VAC 2A, 480VAC 1A, 600VAC 0.1A, 12VAC Minimum
Expected Relay Life	Mechanical: 10,000,000 Operations Electrical: 100,000 Operations at Rated Load
Frequency of Operation	360 Operations/Hr
Operating Temperature	-20 to +140° F
Humidity Tolerance	0 – 97% w/o Condensation
Case Material	Noryl
Mounting	Surface Mount
Weight	1 lb 1 oz

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SIGNALINE
DIV OF TIME MARK CORPORATION

11440 East Pine Street
Tulsa, Oklahoma 74116

MODEL 30 High Voltage Multi-function Timer

READ ALL INSTRUCTIONS BEFORE INSTALLING, OPERATING OR SERVICING THIS DEVICE.
KEEP THIS DATA SHEET FOR FUTURE REFERENCE.

GENERAL SAFETY

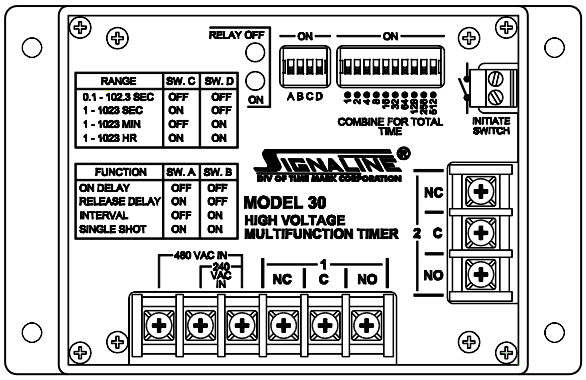
POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE MODEL 30.
ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING.
THIS DEVICE SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.

Installation Instructions

INSTALLATION

1. Mount the Model 30 to the back panel of a suitable enclosure (mounting hardware is not included).
2. Set the DIP switches for the desired timing range and function as shown in the PROGRAMMING table .
3. Set the DIP switches for the delay time as shown in the ADJUSTMENT PROCEDURE.
4. Connect the load to the appropriate relay output terminals.
5. For the Release Delay and Single Shot function, install a normally open switch to the green 2-position plug.
6. Connect operating power to the appropriate terminals of the 6-position terminal strip. Refer to drawing below.

We recommend a 1A 600VAC Fuse on input

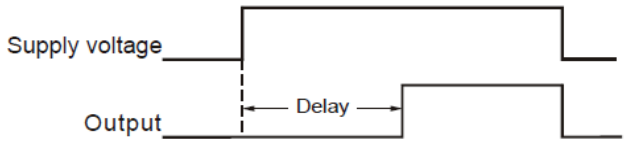


PROGRAMMING (4-Position DIP Switch)

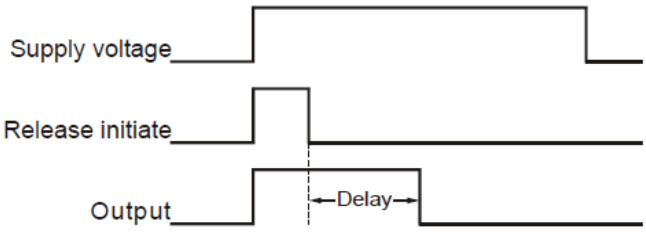
FUNCTION	SWITCH A	SWITCH B
ON DELAY	OFF	OFF
RELEASE DELAY	ON	OFF
INTERVAL	OFF	ON
SINGLE SHOT	ON	ON
TIMING RANGE	**SWITCH C**	**SWITCH D**
0.1 - 102.3 SEC	OFF	OFF
1 - 1023 SEC	ON	OFF
1 - 1023 MIN	OFF	ON
1 - 1023 HR	ON	ON

FUNCTION DESCRIPTIONS

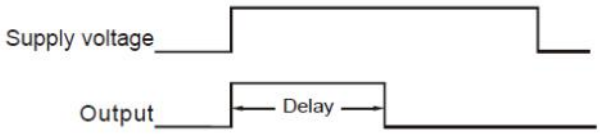
On Delay: The time delay begins when the supply voltage is applied. Upon completion of the delay period, the internal relay will energize, and remain that way until the supply voltage is removed.



Release Delay: Supply voltage must be constantly applied. When the control switch is closed, the internal relay will energize. Timing begins when the control switch is opened. The delay can be reset by re-closing the control switch. On completion of the delay, the relay will de-energize.



Interval: The internal relay energizes immediately on application of the supply voltage. Upon completion of the delay period, the relay de-energizes. The supply voltage must be removed to reset the timer.



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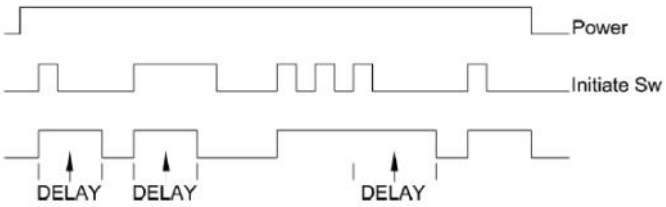
Installation Instructions

FUNCTION DESCRIPTIONS (cont'd)

Single Shot (Re-Triggerable): With power applied to the coil, the relay will energize for the time period set by the user when the initiate switch (dry contact) is closed. At the end of the preset time period, the relay will de-energize. If the initiate switch opens and then closes multiple times while the relay is energized (i.e. it is "retriggered"), the relay will then restart the delay time. The relay will remain energized until the retriggering stops and the delay time ends. When power is removed, the relay will de-energize.



RELAY STATUS

LED INDICATOR	UNIT STATUS
GREEN	ENERGIZED
RED	DE-ENERGIZED
FLASHING (GREEN OR RED)	RELAY IS TIMING

ADJUSTMENT PROCEDURE

The procedure to set the delay time requires some simple calculations, which can be completed easily after the basic steps are explained.

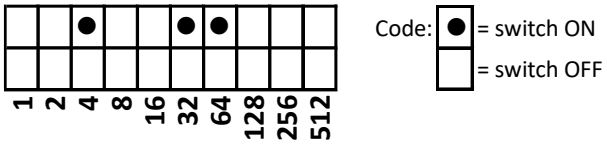
1. Convert the delay time required to hours, minutes, seconds, or tenths of seconds, depending upon the timing range selected.

ADJUSTMENT PROCEDURE

For example:
7 hrs, 32 min = (7x60)+32 = 452 **minutes**
(Select timing range 1 - 1023 min)
15 min, 2 secs = (15x60)+2 = 902 **seconds**
(Select timing range 1 - 1023 sec)
6.7 secs = (6.7*10) = 67 **tenths of a second**
(Select timing range 0.1 - 102.3 sec)

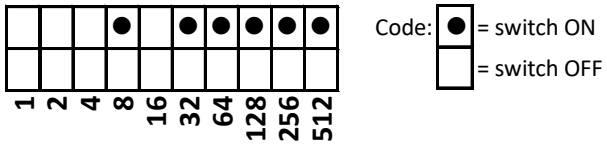
2. To set the desired delay period on the timer, just add the values of the selected dip switches (beginning with the largest value first) to total the desired time.

e.g. #1: 100 seconds with a 1 second increment



64 + 32 + 4 = 100 seconds.

e.g. #2: 100 seconds with a 0.1 second increment



512 + 256 + 128 + 64 + 32 + 8 = 1000 tenths of a second.

WARRANTY

This product is warranted to be free from defects in materials and workmanship, and is covered by our exclusive **5-year Unconditional Warranty**. Should this device fail to operate for any reason, we will repair it for five years from the date of manufacture. For complete warranty details, see the *Terms and Conditions of Sales* page in the front section of the Time Mark catalog or contact Time Mark at 1-800-862-2875.

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