

MODEL 332 MODEL 362

Interval Timer

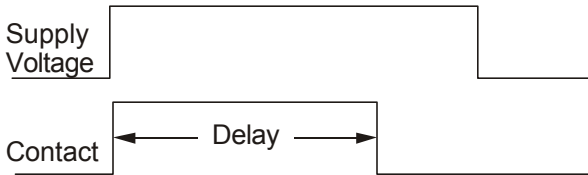
- DPDT Digital or knob-adjust versions
- Wide variety of voltage and timing ranges
- UL and CSA approved to 120VAC
- 5-year unconditional warranty

DESCRIPTION

The **Models 332 and 362 Interval Timers** are designed for a wide usage in new or replacement industrial applications. Examples include automatic and batch control circuits, where the relay needs to be energized for a specific length of time after start-up.

The Model 332 is a DPDT, knob-adjustable timer. The Model 362 is a DPDT, high-accuracy digital timer. Solid-state timing circuits in each model drive an internal electromechanical relay.

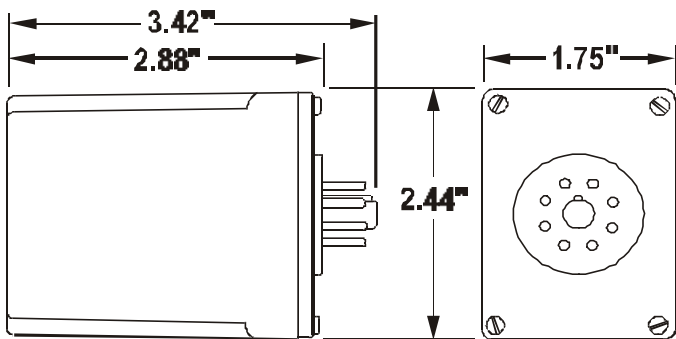
Each model is functionally interchangeable. They are available in a variety of voltage and timing ranges to cover most any application. The 24VAC and 120VAC versions of the Model 332 are UL Recognized and CSA Certified. The Model 362 is UL Recognized up through the 120V AC/DC version. All Model 362 voltage versions are CSA Certified.



OPERATION

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.

DIMENSIONS - Model 362



(dimensions have tolerance of ± 0.05)



SPECIFICATIONS

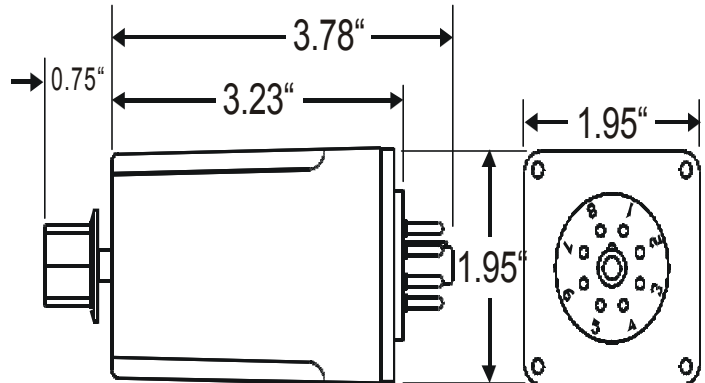
MODEL	332	362
Supply voltage	24, 120 or 230VAC	12, 24, 120 or 230VAC/DC
Timing range	1 - 10 seconds 1 - 60 seconds 1 - 180 seconds 1 - 300 seconds	0.1 - 102.3 seconds 1 - 1023 seconds 1 - 1023 minutes
Accuracy	$\pm 5\%$	$\pm 2\%$
Repeatability	$\pm 2\%$	$\pm 0.1\%$
Recycle time	1 second	100 msec
Contacts	DPDT	
Contact rating	10A at 120VAC resistive	
Transient protection	2500 V for 10 msec	
Operating temperature	-40° to $+140^{\circ}$ F	
Humidity tolerance	0 - 97% w/o condensation	
Enclosure material	ABS plastic	
Mounting	8-pin socket (*not included)	
Weight	5 oz.	
Agency approval	*UL Recognized and CSA Certified *see exceptions in the DESCRIPTION	

* order 8-pin socket number 51X120

ORDERING INFORMATION

order by:	MODEL (knob-adj)	MODEL (digital)	DELAY	
			332 ONLY	362 ONLY
options:	332-24VAC	362-12V AC/DC	10 seconds	0.1 seconds
	332-120VAC	362-24V AC/DC	60 seconds	1 Second
	332-230VAC	362-120V AC/DC	180 seconds	1 Minute
		362-230V AC/DC	300 seconds	
EXAMPLE: to order a knob-adj 24VAC timer with a 1 to 60 sec range				
order model:	332-24		-60	

DIMENSIONS - Model 332



(dimensions have tolerance of ± 0.05)

Telephone: Main - (918) 438-1220
Sales - (800) 862-2875
Fax: (918) 437-7584
E-mail: sales@time-mark.com
Internet: http://www.time-mark.com



11440 East Pine Street
Tulsa, Oklahoma 74116

Doc No. 87A154 12/00
© 2000 TIME MARK CORPORATION

TIME MARK is a division of  AEMT, Inc.

MODEL 332 / 362 Interval Timer

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

GENERAL SAFETY

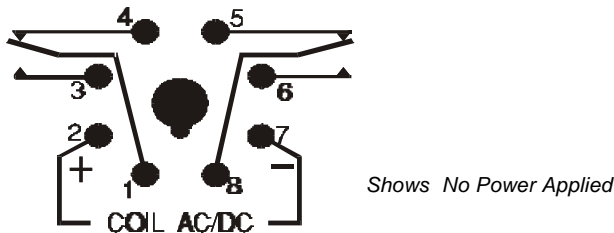
POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE MODEL 332 OR 362.
ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING.
THIS DEVICE SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.

Installation Instructions

INSTALLATION

The Models 332 and 362 Interval Timers require a standard 8-pin socket for mounting, and use a standard pin configuration. Refer to the pin diagram below, or on the timer, for terminal connections.

PIN DIAGRAM



ADJUSTMENT PROCEDURE - Model 362

The procedure to determine the switch selections for the digital Model 362 Interval Timer requires some simple calculations, which can be completed easily after the basic steps are explained.

- Convert the delay time required to minutes, seconds, or tenths of seconds, depending upon the timing range of the unit. **For example:**

$$7 \text{ hrs, } 32 \text{ min} = 420 \text{ mins } (7 \times 60) + 32 = 452 \text{ minutes}$$

$$15 \text{ min, } 2 \text{ secs} = 900 \text{ secs } (15 \times 60) + 2 \text{ secs} = 902 \text{ seconds}$$

$$60.7 \text{ secs is set to } 607, \text{ omitting the decimal point}$$

- To set the desired delay period on the timer, you must perform a series of subtractions from the desired time (using binary numbers), until the remainder is equal to zero. This is how you will determine which switches to set to the ON position, on the DIP switch.

The subtraction process must begin with the largest binary number that can be subtracted from the desired time.

The remaining time after each subtraction must be reduced by the largest binary number possible (see figures 1 and 2).

figure 1

Binary numbers	Time Delay 300 seconds	Time Delay 400 seconds
512	300	400
256	-256	-256
128	44	144
64	-32	-128
32	12	16
16	-8	-16
8	4	0
4	-4	256+128+16=400
2	0	
1	256+32+8+4=300	

figure 2

Model 362-1 sec; set for a 600 seconds delay

600	1	<input type="checkbox"/>	Code: <input type="checkbox"/> = switch OFF <input checked="" type="checkbox"/> = switch ON
-512	2	<input type="checkbox"/>	
88	4	<input type="checkbox"/>	
-64	8	<input checked="" type="checkbox"/>	
24	16	<input checked="" type="checkbox"/>	
-16	32	<input type="checkbox"/>	
8	64	<input checked="" type="checkbox"/>	
-8	128	<input type="checkbox"/>	
0	256	<input type="checkbox"/>	
	512	<input checked="" type="checkbox"/>	

WARRANTY

The **Models 332 and 362 Interval Timers** are covered by the Time Mark Corporation **5-Year Unconditional Warranty**. Should either of these devices fail, for any reason, within five years from the date of purchase, they will be repaired or replaced, free. Contact the Time Mark Sales department, Monday through Friday; 8 a.m. to 5 p.m., CST, for further details.

Telephone: Main - (918) 438-1220

Sales - (800) 862-2875

Fax: (918) 437-7584

E-mail: sales@time-mark.com

Internet: http://www.time-mark.com



11440 East Pine Street
Tulsa, Oklahoma 74116

Doc No. 87A154 12/00
© 2000 TIME MARK CORPORATION

TIME MARK is a division of AEMT, Inc.