

Series A652

Multi-Function Multi-Range Solid State Timer

Operation:

The Model A652 is a micro-processor based timer with a 4 digit LCD display that can provide an indication of either preset time remaining or elapsed. There are five timing ranges covering time values from one millisecond to 199 hours 59 minutes. The unit has both an instantaneous relay output and a programmable relay output which can be programmed for any one of 14 different timing modes.

The timing range and mode are selected with an internal DIP switch. The time value is entered using the keypad on the front face. The programmed values are retained in memory and are secured in memory by a keypad lockout command. The keypad can also be used to perform secondary functions such as reset, immediate time out, time inhibit, changing the direction of the display, displaying the number of cycles run, and clearing the cycle counter.

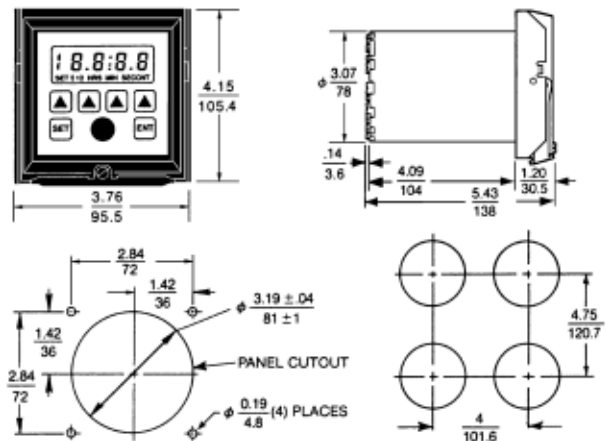
The Model A652 is housed in a standard 15-terminal, plug-in, round case. Models are available for operation on either 120VAC or 240VAC.

Features:

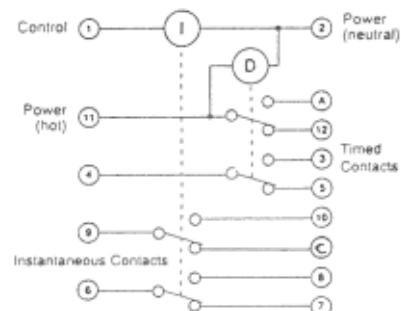
- Data Retention Memory with EEPROM Circuitry. (A652-8-2000, A652-8-2001 Models)
- Data Retention Memory with Lithium Battery. (A652-8-3000, A652-8-3001 Models)
- Six Single-Cycle and Eight Repeat-Cycle Timing Modes.
- Five Time Ranges From .001 Second.
- Replaces Most Electro-Mechanical Timers.
- Easy Programming 7/16" High LCD Display.
- Sealed Faceplate.
- Keypad Lockout of Time Setting.
- Internal Cycle Counter.



Dimensions



Wiring



Series A652

Specifications - All Models

- **Timing Ranges**
 - 0.001 Sec. to 19.999 Sec.
 - 0.01 Sec. to 199.99 Sec.
 - 0.1 Sec. to 1999.9 Sec.
 - 1 Sec. to 199 min. 59 Sec.
 - 1 min. to 199 Hr. 59 Min.
- **Timing Modes**
 - ON Delay, Interval, Reverse Start Delay, Reverse Start Interval, Momentary Start, Accumulator, Repeat Cycle-OFF First, Repeat Cycle-ON First, Repeat Cycle Reverse Start-OFF First, Repeat Cycle Reverse Start-ON First, Repeat Pulse, First Pulse Immediate, Repeat Pulse-Reverse Start, First Pulse Immediate Reverse Start.
- **Instantaneous Relay Output**
 - 7 Amps Resistive, 240 VAC, 2 N.O., 2 N.C. Contacts.
- **Timed Relay Output**
 - 7 Amps Resistive, 240 VAC, 2 N.O., 2 N.C. Contacts.
- **Relay Mechanical Life**
 - 50,000,000 Operations.
- **UL & C-UL (CANADA) Recognized**
 - File No. E104697
- **Time Setting**
 - Front Panel Keypad.
- **Time Repeat Accuracy**
 - ±0.005 Sec.
- **Operating Power**
 - 120 or 240 VAC, +10%, -20%, 50/60Hz.
- **Display**
 - LCD: 4 Digit, 7/16" High.
- **Termination**
 - Screw Terminals.

Specifications - All Models (Continued)

- **Mounting**
 - Plug-In Case.
- **Transient Voltage Protection**
 - Metal Oxide Varistor
- **Operating Temperature**
 - 0° - 60° C.
- **NEMA Rating**
 - NEMA 12.

Specifications - (Models A652-8-2000 & A652-8-2001)

- **Reset Time**
 - 25 Milliseconds.
- **Control Voltage Initiate Time**
 - 25 Milliseconds.
- **Memory**
 - EEPROM Circuitry.
- **Power Consumption**
 - 5.2 VA.

Specifications - (Models A652-8-3000 & A652-8-3001)

- **Reset Time**
 - 8 Milliseconds.
- **Control Voltage Initiate Time**
 - 8 Milliseconds.
- **Memory**
 - Lithium Battery.
- **Power Consumption**
 - 3.7 VA.

Part Number	Description	Price
A652-8-2000	Plug-in, Round Case Timer 120VAC w/ EEPROM Memory	\$190.00
A652-8-2001	Plug-in, Round Case Timer 240VAC w/ EEPROM Memory	\$190.00
A652-8-3000	Plug-in, Round Case Timer 120VAC w/ Battery Memory	\$175.00
A652-8-3001	Plug-in, Round Case Timer 240VAC w/ Battery Memory	\$185.00
A651-3-0128	Mounting Gasket, 1/8" Thick (Included with Timer)	\$5.00
A651-3-0129	Mounting Gasket, 1/4" Thick (Included with Timer)	\$5.00
A652-3-0130	Replacement Lithium Battery (For -3000, -3001 Models)	\$8.00

Series A653 Multi-Function Multi-Range Solid State Timer/Counter

Operation:

The Model A653 is a micro-processor based control that can function as either a timer or a counter. It has a 4 digit LCD that can provide an indication of either the time or count value remaining or elapsed. There are five timing ranges covering time values from one millisecond to 199 hours 59 minutes. There are also three count speeds to a maximum of 7500 counts per second. The unit has an instantaneous relay output and a programmable relay output which can be programmed for any one of 14 different timing modes.

The timing range, count speed and timing mode are programmed with an internal DIP switch assembly. An external switch determines whether the time inhibit or count input takes place with application or removal of voltage. The time or count value is preset by the operator using the keypad on the front face.

These programmed values are retained in memory and are secured in memory by a keypad lockout command. The keypad can also be used to perform secondary functions such as reset, immediate time/count out, time/count inhibit, changing the direction of the display, displaying the number of cycles run, and clearing the cycle counter.

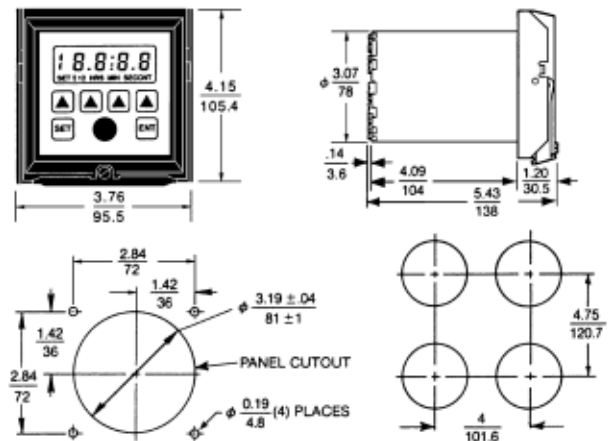
The Model A653 is housed in a standard 15-terminal plug-in round case. Models are available for operation on either 120 VAC or 240 VAC. Counting can be done at either line voltage or at 12-48 VDC/24 VAC.

Features:

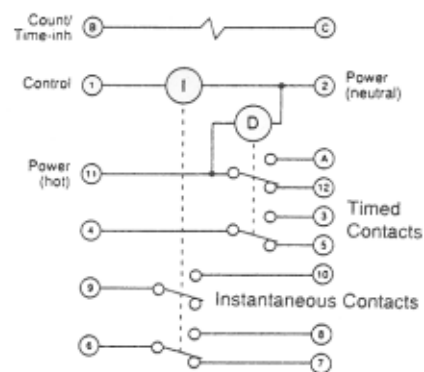
- Data Retention Memory with EEPROM Circuitry. (A653-8-2000, A653-8-2001 Models)
- Data Retention Memory with Lithium Battery. (A653-8-3000, A653-8-3001 Models)
- Six Single-Cycle and Eight Repeat-Cycle Timing Modes.
- Five Time Ranges From .001 Second.
- Replaces Most Electro-Mechanical Timers.
- Functions As Timer or Counter.
- Sealed Faceplate.
- Count Input Scaling.
- Cycle Counter.



Dimensions



Wiring



Series A653

Specifications - All Models

- **Timing Ranges**
 - 0.001 Sec. to 19.999 Sec.
 - 0.01 Sec. to 199.99 Sec.
 - 0.1 Sec. to 1999.9 Sec.
 - 1 Sec. to 199 min. 59 Sec.
 - 1 min. to 199 Hr. 59 Min.
- **Timing Modes**
 - ON Delay, Interval, Reverse Start Delay, Reverse Start Interval, Momentary Start, Accumulator, Repeat Cycle-OFF First, Repeat Cycle-ON First, Repeat Cycle Reverse Start-OFF First, Repeat Cycle Reverse Start-ON First, Repeat Pulse, First Pulse Immediate, Repeat Pulse-Reverse Start, First Pulse Immediate Reverse Start.
- **Timed Relay Output**
 - 7 Amps Resistive, 240 VAC, 2 N.O., 2 N.C. Contacts.
- **Relay Mechanical Life**
 - 50,000,000 Operations.
- **UL & C-UL (CANADA) Recognized**
 - File No. E104697
- **Time Setting**
 - Front Panel Keypad.
- **Time Repeat Accuracy**
 - Count: 100%
 - Time ± 0.005 Sec.
- **Operating Power**
 - 120 or 240 VAC, +10%, -20%, 50/60Hz.
- **Display**
 - LCD - 4 Digit, 7/16" High.
- **Termination**
 - Screw Terminals.

Specifications - All Models (Continued)

- **Mounting**
 - Plug-In Case.
- **Transient Voltage Protection**
 - Metal Oxide Varistor
- **Operating Temperature**
 - 0° - 60° C.
- **NEMA Rating**
 - NEMA 12.

Specifications - (Models A653-8-2000 & A653-8-2001)

- **Reset Time**
 - 25 Milliseconds.
- **Control Voltage Initiate Time**
 - 25 Milliseconds.
- **Memory**
 - EEPROM Circuitry.
- **Power Consumption**
 - 5.2 VA.
- **Instantaneous Relay Output**
 - 7 Amps Resistive, 240 VAC, 2 N.O., 1 N.C. Contacts.

Specifications - (Models A653-8-3000 & A653-8-3001)

- **Reset Time**
 - 8 Milliseconds.
- **Control Voltage Initiate Time**
 - 8 Milliseconds.
- **Memory**
 - Lithium Battery.
- **Power Consumption**
 - 3.7 VA.
- **Instantaneous Relay Output**
 - 7 Amps Resistive, 240 VAC, 2 N.O., 1 N.C. Contacts.

Part Number	Description	Price
A653-8-2000	Plug-in, Round Case Timer 120VAC w/ EEPROM Memory	\$210.00
A653-8-2001	Plug-in, Round Case Timer 240VAC w/ EEPROM Memory	\$195.00
A653-8-3000	Plug-in, Round Case Timer 120VAC w/ Battery Memory	\$180.00
A653-8-3001	Plug-in, Round Case Timer 240VAC w/ Battery Memory	\$190.00
A651-3-0128	Mounting Gasket, 1/8" Thick (Included with Timer)	\$5.00
A651-3-0129	Mounting Gasket, 1/4" Thick (Included with Timer)	\$5.00
A652-3-0130	Replacement Lithium Battery (For -3000, -3001 Models)	\$8.00

Series A655

Specifications:

- **Timing Ranges**
0.001 Sec. to 19.999 Sec.
0.01 Sec. to 199.99 Sec.
0.1 Sec. to 1999.9 Sec.
- **Timing Modes**
ON-Delay or Reverse Start Delay.
- **Time Setting**
Front Panel Keypad.
- **Time Repeat Accuracy**
±.005 Sec.
- **Reset Time**
25 Milliseconds.
- **Control Voltage Initiate Time**
25 Milliseconds.
- **Memory**
Lithium Battery - Replaceable.
- **Operating Power**
120 or 240VAC,
+10%, -20%,
50/60Hz.
- **Power Consumption**
5.2VA.
- **Instantaneous Relay Output**
7 Amps Resistive,
240VAC,
2 N.O., 2 N.C. Contacts.
- **Relay Mechanical Life**
50,000,000 Operations.
- **Display**
LCD - 4 Digit, 7/16" High.
- **Termination**
Screw Terminals.
- **Mounting**
Plug-In Case.
- **Short Circuit Protection**
1/4 Amp Fuse.
- **Transient Voltage Protection**
Metal Oxide Varistor.
- **Operating Temperature**
0°-60° C.
- **UL Listing**
File No. E104697.
- **NEMA Rating**
NEMA 12.

Part Number	Description	Price
A655-8-1000	Timer 120VAC w/ EEPROM Memory	\$200.00
A655-8-1001	Timer 240VAC w/ EEPROM Memory	\$160.00
A655-8-3000	Timer 120VAC w/ Battery Memory	\$160.00
A655-8-3001	Timer 240VAC w/ Battery Memory	\$170.00
A651-3-0128	Mounting Gasket, 1/8" Thick (Included with Timer)	\$5.00
A651-3-0129	Mounting Gasket, 1/4" Thick (Included with Timer)	\$5.00
A652-3-0130	Replacement Lithium Battery (For -3000, -3001 Models)	\$8.00