

MODULE SPECIFICATION

9999 Days Countdown Timer Module with Chronometer

Model No.: 50T-A0M-DD

Descriptions

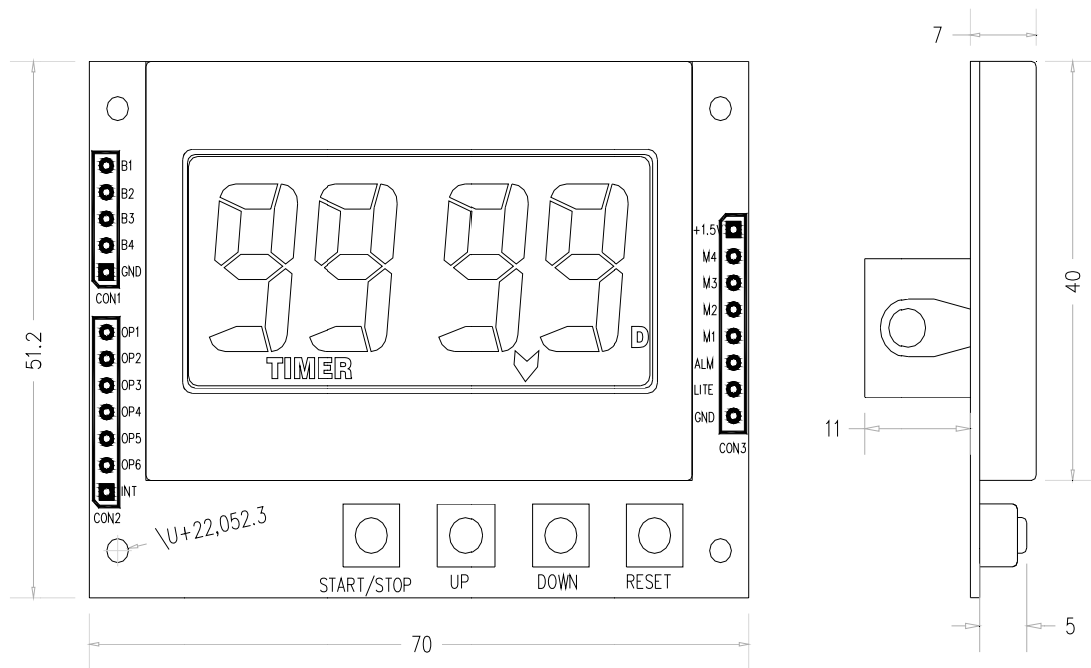
1.50 VDC operated 4 digits, with 16 mm digit height, 9999 days capacity time counter. This countdown timer module includes four buttons. The far left button acts as start, stop, clear, and recall. The next two are the up and down settings. The last one is reset button. Six output poles are designed to provide user comprehensive applications, such as power on/off control of electrical device, security device control, automatically alarm system activation. Many other versions are available. Please refer to the last paragraph for Versions List. UM4 battery holder mounted on the rear side.

As people know the most important feature of a timer is constantly reminding user that the set time is up, especially counting for long term period. People may disregard the case. But audible alarm wastes too much power. To continually keeping piezo buzzer goes off, the battery power should be exhausted for just few minutes. In order to make this feature comes realistic, our R/D developed a new program called PSEA (power saving endless alert) for the alarm. This model is equipped with this PSEA feature as a standard. However, if people prefer to have traditional one minute alert, it can be down too.

Further to the PSEA alert, like mentioned above, the timer provides another method of endless alert, called visual endless alert, i.e., when counting expired, as well as audible alert, the full LCD becomes blinking. So this timer provides dual alert, audible and visual.

The display resolution is dynamically changed, from 1 day down to 1 second depending upon the counting stage. Due to the limitation of 4 digits LCD screen, with constant resolution the display cannot show the counting details after counting down to 100 days. Usually most of the product available in market, the display shows day reading only. User cannot see the hour reading. But this timer provides the solution. It changes the display format dynamically from DDDD to DD:HH, DD:HH to HH:MM, and then from HH:MM to MM:SS.

Furthermore, the "count up" feature is added as a standard to provide user to know how long the time is expired. With this feature, user can use the timer as a chronometer too. It can count up from 0 to 9999 days. Indeed it is an ideal instrument to measure long term activities, or lifespan.



Main Features

- Maximum Capacity: 9999 days
- Resolution: Dynamic, from 1 day down to 1 second
- Setting interval: 1 day
- 4 keys: Start/Stop/clear/recall, Up, Down, and Reset
- Automatically memory recalls the display to the last programmed time
- Depending upon the counting status, the display automatically changed to an appropriate format
- Power: 1.5 VDC, UM4 battery holder mounted on rear side normally
- PSEA (Power Saving Endless Alert) normally for this model
- Count up after counting down to zero
- Various output poles for special application are available upon request

Specifications

- ✧ Physical Size:
 - PCB Size: 70 x 51.2 mm
 - Plastic Frame: 58 x 40 mm
 - Thickness: 7 mm (battery holder not included)
- ✧ LCD Display
 - Screen Size: 49.3 x 22.3 mm
 - Number of Digit: 4 digits
 - Digit Height: about 16.00 mm
- ✧ Button: tact s/w, 5 mm height; externally connection is possible
- ✧ Power Source: +1.5VDC, use one piece of UM4(AAA), battery holder mounted; externally input is possible
- ✧ Alert Method: audible and visual; PSEA piezo beep, and LCD blinking
- ✧ Technical Data:
 - Operating Voltage: +1.20 ~ + 1.70 volts
 - Typical Current Drain: 3μA in normal condition; 400 μA at alarm mode
 - Operation Temperature: -10 ~ +50 °C
 - Storage Temperature: -20 ~ +60 °C

Applications

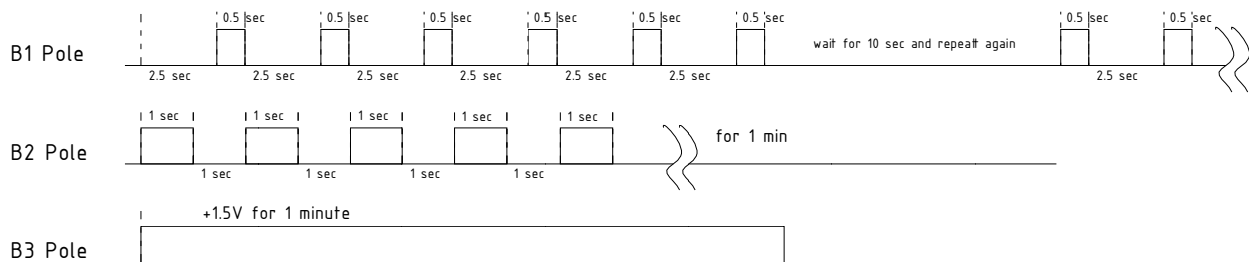
Audible Alarm:

Power saving endless alert (PSEA), beeps 6 times, then waits for 10 seconds and repeat

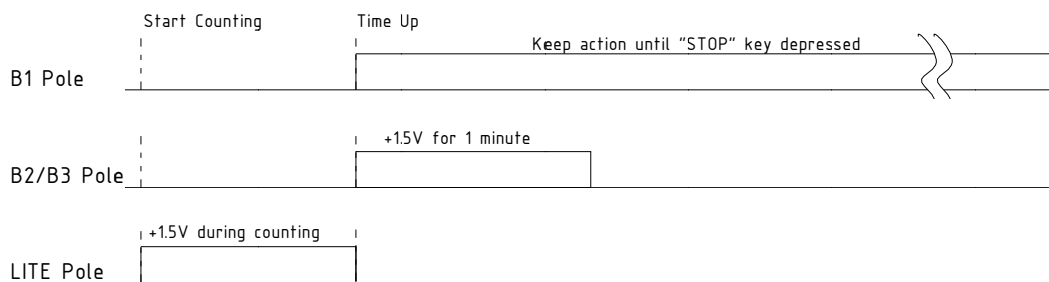
Output Poles (at CON1 & CON3):

- B1: After counting to zero, provides 2.5 sec "OFF", 0.5 sec "ON" for 6 times, then wait for 10 sec and then repeat again. Never stop unless "Stop" key is depressed.
- B2: After counting to zero, provides 1 sec "ON", 1 sec "OFF" for 1 minute.
- B3: After counting to zero, provides level high (1.5VDC) for 1 minute
- B4: Power "ON" auto-start counting (application details upon request)
- LITE: Deliver level high (1.5VDC) signal during counting
- ALM: Aural alarm output, 4K Hz for 1 minute, or PSA alert signal

a) Wave Form of each Output Pole at Timer Countdown to zero:



b) Action Chart of each pole :



Pin Connection for Keys (at CON3):

- M1: connect to 1.5 VDC to "Start", "/Stop", "Clear", and "Recall"
- M2: connect to 1.5 VDC to adjust "Up"
- M3: connect to 1.5 VDC to adjust "Down"
- M4: connect to 1.5 VDC to erase the display reading

Additional Features Available upon Request

- Disable count up after countdown to zero
- Alarm Method: Instead of PSEA audible alert, regular 1 minute piezo beep
- Various signal output and control poles for different application (please refer to the previous paragraph)

Versions Table

Model No.	Maximum Capacity	Resolution	Minimum Setting Interval
50T-A0H-MS	99 min 59 sec	1 sec	1 sec
50T-A0H-HM	99 hr 59 min	dynamic change, from 1 min to 1 sec	1 min
50T-A0H-DH	99 days 23 hours	dynamic change, from 1 hr to 1 sec	1 hour
50T-A0M-MM	9999 minutes	dynamic change, from 1 min to 1 sec	1 minute
50T-A0M-HH	9999 hours	dynamic change, from 1 hr to 1 sec	1 hour
50T-A0M-DD	9999 days	dynamic change, from 1 day to 1 sec	1 day