

# MODULE SPECIFICATION

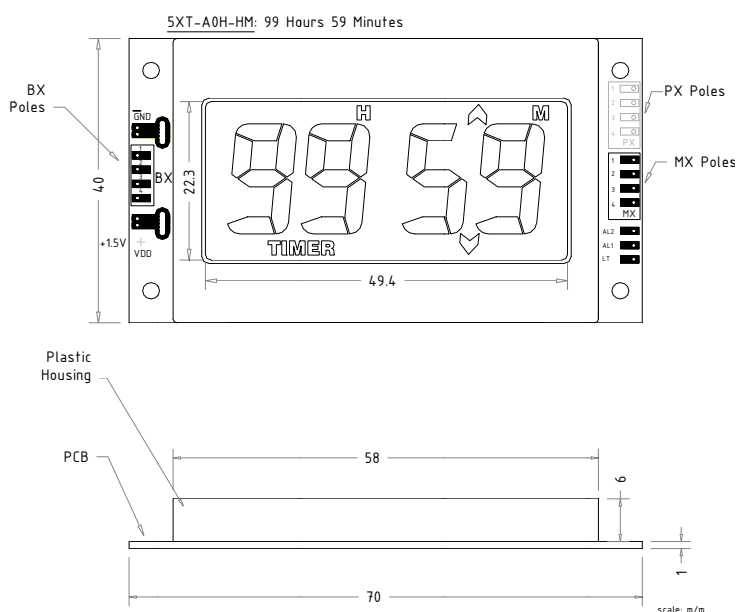
## 5XT-A0H-HM Series: 99 Hours 59 Minutes Countdown Timer Module

### Main Features

- 4 keys: Start/Stop, Hour, Minute, and Reset
- Automatically memory resets the display to the last programmed time
- Depending upon the counting status, the display automatically changed to an appropriate format
- Power: 1.5 VDC
- External connection for power leads, and keys (solder pads at the edges of PCB)
- 1 minute alarm normally. However, PSEA (Power Saving Endless Alert) is available upon request
- Various output poles for special application are available upon request

### Specifications

- ✧ Physical Size:  
PCB Size: 70 x 40 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: 4 keys, external connection
- ✧ Power Source: +1.5VDC, external connection
- ✧ Alarm Method: 4K Hz, piezo buzzer
- ✧ 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



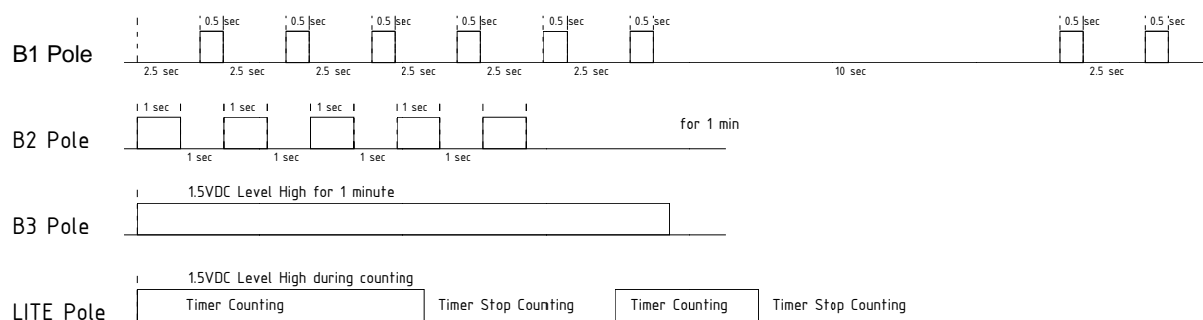
### Applications

#### Output Poles:

- AL1: Audible alarm output, direct from MCU after countdown to zero , 4 K Hz for 1 minute (or PSEA alert, beep 6 times, then wait for 10 seconds and repeat)
- AL2: The collector pole of NPN (2N3904), which base is connected to AL1.
- B1 Pole: After counting to zero, delivers 2.5 sec "OFF", 0.5 sec "ON" for 6 times, then wait for 10 sec and repeat again. Never stop unless "Stop" key is depressed.
- B2 Pole: After counting to zero, delivers 1 sec "ON", 1 sec "OFF" for 1 minute.
- B3 Pole: After counting to zero, delivers level high (1.5VDC) for 1 minute
- B4 Pole: Power "ON" auto-start counting (application details upon request)
- LITE Pole: Deliver level high (1.5VDC) signal during counting

Please refer to the following wave chart:

### Wave Form for Each Output Poles:



### Pins Connections for Keys (MX Poles):

- M1: Connect to 1.5VDC for "Start/Stop" key
- M2: Connect to 1.5VDC for "Hour" adjustment
- M3: Connect to 1.5VDC for "Minute" adjustment
- M4: Connect to 1.5VDC to erase the display reading

### Versions Table

Model No.	Maximum Capacity	Resolution	Minimum Setting Interval
5XT-A0H-MS	99 Min 59 Sec	1 sec	1 Sec
5XT-A0H-HM	99 Hr 59 Min	1 sec after 100 min	1 Min
5XT-A0H-DH	99 Days 23 Hours	1 sec after 100 min	1 Hour
5XT-A0M-MM	9999 Minutes	1 sec after 100 min	1 Minute
5XT-A0M-HH	9999 Hours	1 sec after 100 min	1 Hour
5XT-A0M-DD	9999 Days	1 sec after 100 min	1 Day

### Additional Option Features

- ✧ Count up after countdown
- ✧ Alert method: one minute audible alarm, Power Saving Endless Alert (PSEA), endless audible alarm, and/or 30 seconds pace beeping
- ✧ Power On auto start counting
- ✧ Output poles with various signal

### Suffix Code List after Model Number for Options Selected

1. Countdown or Count Up: "D" = Countdown only; "U" = Countdown & count up
2. Alert Method: "M" = 1 minute aural alert; "P" = Power Saving Alert (PSA); "A" = Endless alarm unless "Stop" button depressed; "N" = no alarm
3. Output Pole: "N" = Non; "O" = Yes, all poles activated; "L" = "LITE" pole only
4. 30 seconds pace beeping: add "-s" when selected

Example:

5XT-A0H-HM-UMO

*Means: 99 hours 59 minutes capacity; countdown & count up; 1 minute audible alarm; all output poles activated*