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# TT33 Digital Multifunction Dual Timers

**Models Available**

**TT33ML** Digital Timer 24Vac/dc
**TT33MH** Digital Timer 100-240Vac

**Product Features**

- 4 digit red LED display dual timer
- 5 programmable timing modes
- Time ranges from 99.99sec to 9999hrs
- 24Vac/Vdc or 100-240Vac
- 1 changeover and 1 N/O relay output
- Programmable start and reset
- EEPROM memory (minimum 10 years)
- Security passcode
- IP65 enclosure code
- Panel mounting
- Selectable up/down timing
- LED status and timing indicators

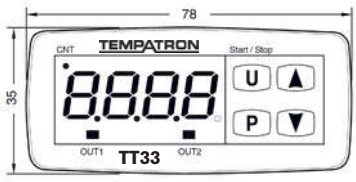
The Tempatron TT33 dual 4 digit digital timer is a multifunction, multi-time range digital timer suitable for controlling operation of equipment, machinery, systems or processes in a wide range of industrial applications.

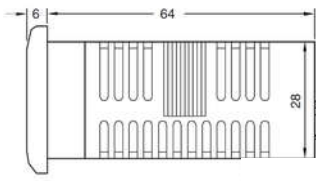
Five timing functions can be selected together with time ranges from 0.01 second to 9999 hours, to operate two independent relay output contacts which are isolated from the supply voltage. The output contacts can be configured as two timed outputs, or one timed and one instantaneous output.

These timers are housed in a compact panel mounting enclosure and are powered from 24Vac/dc or 100-240Vac.

## For timing control of machinery, systems and operational processes

**Dimensions**



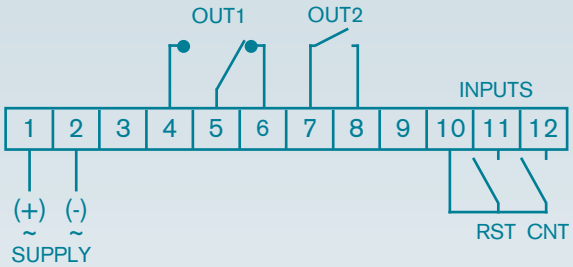




Panel cutout 71mm x 29mm (-0.0/+0.5)

Allow 95mm x 41mm clearance around controller for panel clips

All dimensions in mm

**Connections**



## Timing Modes

| Timing Mode | Timing Function Description | Start / Stop / Reset / Count |
|---|---|---|
| OUT1 Mode 1 | Delay on Energise | Bistable Start/Stop<br>Bistable Reset-Start/Stop<br>Monostable Start/Stop<br>Monostable Reset-Start/Stop<br>Bistable Reset/Start/Stop<br>Bistable Start/Stop-Reset<br>Count UP or DOWN |
| OUT1 Mode 2 | Interval | |
| OUT1 Mode 3 | Immediate Cycling with Variable On and Off Times | |
| OUT1 Mode 4 | Delayed Cycling with Variable On and Off Times | |
| OUT1 Mode 5 | Single Delayed Cycle with Variable On and Off Times | |
| OUT2 Mode 1 | Disabled | |
| OUT2 Mode 2 | Instantaneous Contact | |
| OUT2 Mode 3 | Operates the same timing function as OUT1 with an independent set time | Bistable Start/Stop<br>Bistable Reset-Start/Stop<br>Monostable Start/Stop<br>Monostable Reset-Start/Stop<br>Bistable Reset/Start/Stop<br>Bistable Start/Stop-Reset<br>Count UP or DOWN |
| OUT2 Mode 4 | Operates the same timing function as OUT1 but in advance of OUT1 by an independent set time | |
| OUT2 Mode 5 | Energises when the buzzer sounds | |

## Front Panel Display Functions




1. P: Key to set the time delays and to access the parameter programming mode to set the parameter values.
2. ▼: Key to decrease the setting value and to select parameters.
3. ▲: Key to increase the setting value and to select parameters.
4. U **Start/Stop:** Press for Start/Stop/Reset functions.
5. **SET LED:** In normal operating mode this indicates the time delays are being set. In programming mode this indicates the parameter programming level.
6. **CNT LED:** Indicates count in progress, count interrrupted or the reset status.
7. **OUT1 LED:** Indicates the status of output relay 1.
8. **OUT2 LED:** Indicates the status of output relay 2.

## Ordering information

| Model | Code | Description |
|---|---|---|
| | TT33ML | Digital Multifunction Dual Timer 24Vac/dc |
| | TT33MH | Digital Multifunction Dual Timer 100-240Vac |

**Example** **TT33MH**

## Specification

**Accuracy:**
- ±0.1% of full scale

**Power Supply Voltage:**
- TT33ML 24Vac/dc (±10%)
- TT33MH 100-240Vac (±10%)

**Burden:**
- <3VA

**Frequency:**
- 50/60Hz

**Display:**
- 4 digit red LED (12mm high)

**Time Ranges:**
- 0.01 to 99.99sec, 00:01 to 99:59min, 00:01 to 99:59hrs, 1 to 9999hrs

**Timing Functions**
- 5 timing operating modes for OUT1
- 5 timing operating modes for OUT2
- 6 counting modes (Start/Stop/Reset)
- Counting mode UP or DOWN

**Relay Output:**
- Single pole changeover contact and single pole N/O contact

**Contact Rating:**
- OP1 16A at 250Vac/30Vdc (resistive)
- OP2 5A at 250Vac/30Vdc (resistive)

**Relay Contact Life:**
- Electrical: 100,000 operations
- Mechanical: 1,000,000 operations

**Input Delay Time:**
- 15ms maximum

**Operating Temperature:**
- 0°C to 50°C

**Storage Temperature:**
- -20°C to 60°C

**Operating Humidity:**
- <95% rH (non-condensing)

**Enclosure:**
- Panel mounting to DIN 43700
- Self extinguishing plastic case

**Enclosure Code:**
- Case front IP65

**Weight:**
- 170g

**Markings:**
- CE marked (meets 2014/35/EU low voltage and 2014/30/EU EMC directives)

Specification subject to change without notice.

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