# MINITIMER2-MCU™ Quad Timer

Models Available
MINITIMER2-MCU Quad Range Timer

Product Features
- Ideal for OEM applications
- Delay on energise / delay on de-energise
- 4 timing range options
- MYTIME™ custom time range feature
- 16 Amp changeover relay output
- 110Vac, 230Vac or 24Vdc powered
- LOCKPOT™ operation feature
- Onboard LED or optional remote LED

The Tempatron MINITIMER2-MCU™ quad range timer modules are designed for a wide range of timing applications, and are ideal for medium volume OEM applications or one off control panel applications. They combine analogue potentiometer setting simplicity with microprocessor based, digital timing software.

Any one of four commonly used timing ranges can be selected by cutting just two wire links and the timing function can be set to delay on energise or delay on de-energise. The timers also have a MYTIME™ feature enabling the user to set a custom time range, if required. They are available in 110Vac and 230Vac versions (or 24Vdc to special order) with a 16 Amp changeover relay output. These chassis mounting modules measure only 70mm x 45mm and have an onboard (or optional remote) LED to indicate timing and relay status.

For flexible timing control in machinery, systems and operational processes

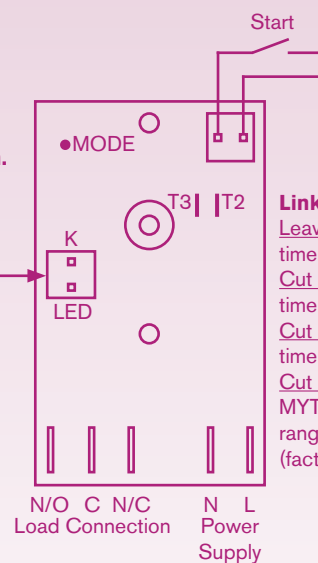## Dimensions
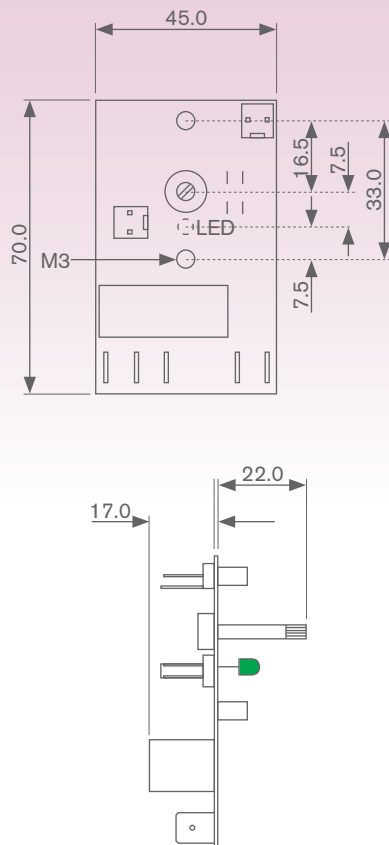
All dimensions in mm

Connections

Note:
The start connections are not isolated from the AC supply.

The unit is set for onboard LED indication. To select **remote LED** indication, 'spin cut' the copper pad adjacent to the LED to disconnect the onboard LED. Connect the remote LED to the 2-pin **LED** Molex header (ensuring LED cathode is connected to pin **K**).

Links T2 & T3
Leave in place for time range of 0 to 10 seconds
Cut link T2 for time range of 0 to 30 seconds
Cut link T3 for time range of 0 to 100 seconds
Cut link T2 and T3 for MYTIME™ user programmable time range of 0 to 9999.9 seconds (factory preset to 300 ±5 seconds).

Power Up Timing
The timer can be set to start timing upon power up (continuous contacts, **DE** delay on energise timing mode only) by connecting the shorting connector (provided) onto the header marked **INPUT**. Set timing commences nominally 1.0 second after the auxiliary power is connected to the timer.

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Ordering information

Model	Code	Description
	MINITIMER2-MCU	Quad Range Timer
		T1: 0 to 10 seconds
		T2: 0 to 30 seconds
		T3: 0 to 100 seconds
		T4: MYTIME™ programmable to 9999.9 seconds

Auxiliary Power	Code	Description
	110V	110Vac
	230V	230Vac
	24V	24Vdc

Example	MINITIMER2-MCU-230V

Configure Continuous or Momentary Start Modes

To change the timer start mode simply:
1. Switch off the auxiliary power to the controller and remove the start contact connections.
2. Insert the programming link into the 2-pin header marked **INPUT**, biased off centre to **STARTMODE** position.
3. Switch on the auxiliary power to the controller. The LED will blink indicating **momentary** contact start mode or illuminate continuously indicating **continuous** contact start mode.
4. Switch off the auxiliary power to the controller, remove the programming link and reconnect the start contacts.
5. Repeat above to re-select **momentary** contact or **continuous** contact as required.

LOCKPOT™ Operation

This feature allows the potentiometer setting to be locked, thereby eliminating unauthorised adjustment of the timer control.
To use this feature simply:
1. Set up the required time using the adjustment potentiometer.
2. Switch off the auxiliary power to the controller and remove the start contact connections.
3. Insert the programming link into the 2-pin header marked **INPUT**, biased off centre to **LOCKPOT** position.
4. Switch on the auxiliary power to the controller. The LED will flash every 3 seconds indicating **LOCKPOT off** or illuminate continuously indicating **LOCKPOT on**.
5. Switch off the auxiliary power to the controller, remove the programming link and reconnect the start contacts.
6. Repeat above to re-select **LOCKPOT on** or **LOCKPOT off** as required.
The LED will blink whenever the relay is on during normal timer operation and **LOCKPOT** is active.

MYTIME™ Programming

The T4 time range is factory set to 300 seconds. This programmed time range can be adjusted by ±5 seconds with the timer potentiometer. Once links T2 and T3 have been cut the **MYTIME** feature allows the user to simply 'teach' the timer an alternative time interval as follows:
1. Switch off the auxiliary power to the controller and remove the start contact connections.
2. Insert the programming link into the 2-pin header marked **INPUT**, centralised to **MYTIME** position. Rotate the potentiometer fully anti-clockwise.
3. Switch on the auxiliary power to the controller. The LED will blink continously to indicate the timer is ready**.**
4. Rotate the potentiometer clockwise until the LED illuminates and start a stopwatch to time the required time interval.
5. Rotate the potentiometer anticlockwise until the LED extinguishes at the required time interval on the stopwatch.
6. Rotate the potentiometer fully anticlockwise and the LED will again blink continuously to indicate programming complete.
7. Switch off the auxiliary power to the controller, remove the programming link and reconnect the start contacts.

Specification

Power Supply Voltages:
- 110Vac (45-60Hz)
- 230Vac (45-60Hz)
- 24Vdc (to special order)

Supply Voltage Variation:
- ±15%

Burden:
- 3.8mA nominal (relay off)

Input:
- Non-isolated for volt-free contacts

Start Modes:
- Continuous contact (factory set)
- Momentary contact (programmable)

Time Ranges:
- T1: 0 to 10 seconds (factory set)
- T2: 0 to 30 seconds (cut T2 link)
- T3: 0 to 100 seconds (cut T3 link)
- T4: MYTIME™ programmable
  0 to 9999.9 seconds (cut T2 & T3 link)
  Factory preset to 300 seconds
  ± 5 seconds (potentiometer adjustable)

Timing Modes:
- DE: Delay on energise (factory set)
- DD: Delay on de-energise (cut pcb pad)

Output:
- Single pole changeover relay contact
- 16A at 240Vac/30Vdc (resistive)

Status LED Indication:
- Off, blinking on: Relay OFF
- Flashing on/off: Timing in progress
- Continuous on: Relay ON

Electrical Connections:
- Five 6.3mm blades for power (L, N) & relay output (N/C, C, N/O)
- 2-pin molex connector for start contacts
- 2-pin molex connector for remote LED

Mounting:
- Two M3 fixing pillars spaced 33mm

Operating Temperature:
- -20°C to 65°C

Enclosure Code:
- Case IP00

Weight:
- 35g

Specification subject to change without notice.

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