

Product Guide

Programmable Extension Timer with Delay



today, tomorrow and in the future

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Product Overview

The E313 is a single-shot extension timer designed to control part, or all of a heating, lighting or air-conditioning system outside normal occupancy hours. A voltage-free relay output is switched on for a configurable number of hours after the delay period has elapsed (also configurable). Thus enabling plant equipment to be automatically activated at the correct time in the future without the user being present. The unit is an extremely user-friendly device with fully adjustable timings (in steps of 1 hour), providing simple yet powerful control of user-managed devices when they are unmanned.

The E313 combines precise and accurate operation with fully configurable parameters to provide effective energy control. This efficient timer offers an adjustable “Delay” period from 0 to 99 hours and an “Extension” period from 1 to 9 hours. The unit also provides the functionality to pre-set a maximum “Extension” period at hourly intervals to ensure that the end-user does not over-estimate the ‘On’ (extension) duration, allowing the authorised user control over each and every extension period.

The E313, not only efficiently controls plant equipment and provides additional efficiency to the time-management of personnel, but it effectively reduces energy bills.

Product Wiring

1. **IMPORTANT:** ensure all electrical connections are isolated before commencing any work on the unit.
2. Power to the E313 extension timer is provided via the Live and Neutral input terminals labelled “L” and “N” (230V AC, 50Hz). This supply should be suitably fused (recommended: 1A slow blow).
3. NOTE: This timer MUST be earthed using the earth terminal provided.
4. A voltage-free changeover relay output capable of switching loads of up to 10A, 250V AC (resistive) is provided by the extension timer.
5. The Common “COM” terminal is connected to the Normally Open “N/O” terminal during the extension period, otherwise it is connected to the Normally Closed “N/C” terminal at all other times.

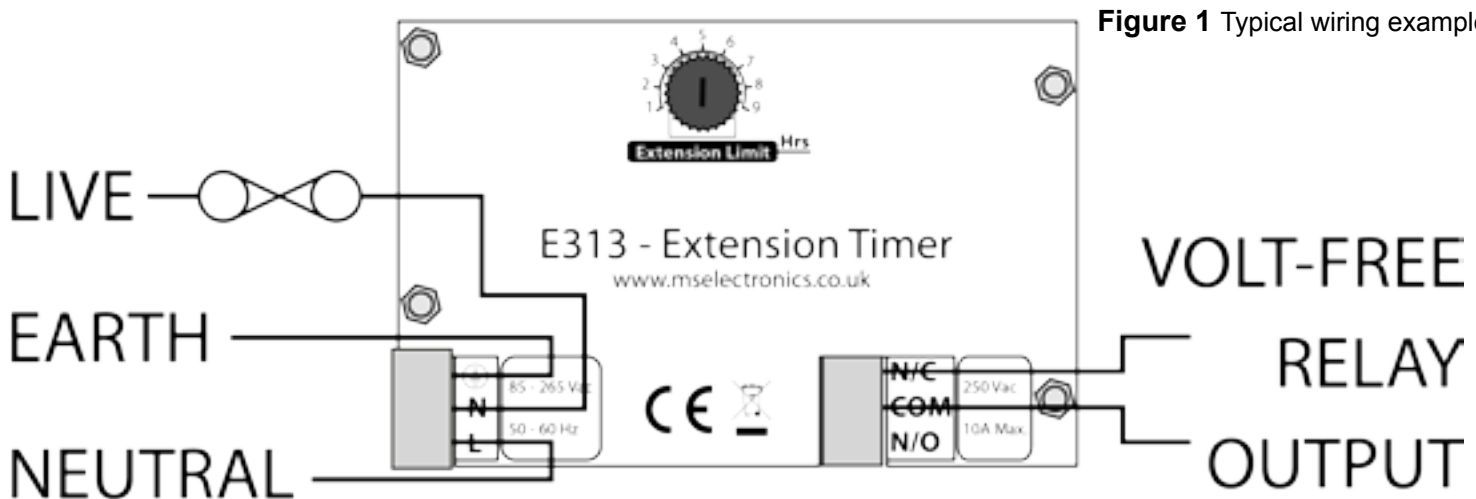


Figure 1 Typical wiring example

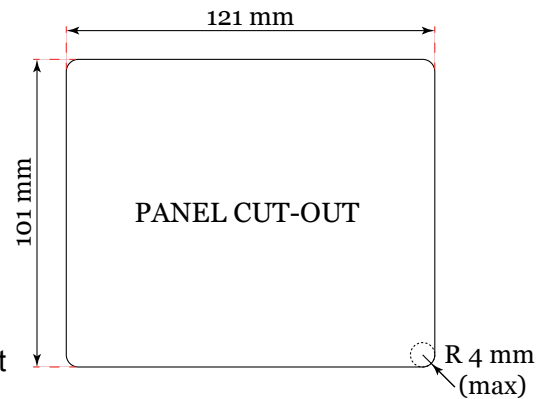
Installation

1. **IMPORTANT:** ensure all electrical connections are isolated before commencing any work on the unit.
2. Ensure the control panel has a hole cut-out of the correct size to mount the E313 extension timer (see Figure 2).
3. Unscrew the 4 screws on the face of the E313 to remove the back cover, plus the 2 screws holding the mounting bracket to the back cover.
4. Feed the wiring through the control panel cut-out, through the rubber grommet in the E313 back cover and connect the wiring to the terminal blocks on the extension timer as shown in the wiring diagram (or any suitably appropriate form). Make sure to choose the correct output terminals that are suitable to your application.

5. Adjust the “Extension Limit” dial to suit the operational requirement (see the “Operation” section).
6. Replace the back cover and 4 screws on the face of the E313.
7. Seat the E313 in the control panel.
8. Replace the mounting bracket and tighten the bracket screws to securely hold the E313 in place.
9. **NOTE:** Do not over-tighten the screws!

Operation

Figure 2 Panel cut-out



IMPORTANT: ensure all electrical connections are isolated before commencing any work on the unit.

During installation, adjust the “Extension Limit” to the maximum number of hours the extension period can to be allowed to run for (recommended: 4 hours).

Operation Modes

- Standby: Power-saving dim LED displays showing “0” on all digits.
- Setting Up: Bright LED displays with the currently selected digit blinking.
- Running: Bright LED displays with the “Running” LED blinking.
“On” LED illuminates when the extension is active.

“Increase” Pushbutton

- Press: Increments the blinking digit by 1 unit.
- Hold: Increments the blinking digit automatically while held down.

“Select/Start/Stop” Pushbutton

- Press: Selects the next digit to adjust (disabled when running).
- Hold: Starts or stops the extension.

Typical Example

16 hours delay with a 4 hour extension period:

- a. From Standby mode Press “Select” to select the first digit of “Delay”.
- b. Press “Increase” to increment the first digit to “1”.
- c. Press “Select” to select the second digit of “Delay”
- d. Hold “Increase” until the second digit increments to “6”.
- e. Press “Select” to select the “Extension” digit.
- f. Hold “Increase” until the digit shows “4”.
- g. Hold “Start” to start the extension running.

The E313 will count down 16 hours before enabling the relay output for 4 hours.

Additional Operating Guidelines

- a. The extension may be cancelled at any time by holding down the “Stop” button.

Technical Specification	
Power supply:	85 - 265V AC, 50 - 60Hz (live/neutral/earth)
Output switch rating:	10A @ 250V AC (resistive)
Output switch type:	Changeover relay (volt-free)
Operating temperature:	-10°C to +40°C
Suitable for:	22mm (or deeper) single-gang UK pattress box
Guarantee:	5 Years
Weight:	0.3kg
Control panel cut-out:	101mm x 121mm
Dimensions mm:	119mm x 99mm x 42mm
Front panel dimensions:	123.5mm x 105mm

Technical Support

For further help or information on this and the other products in the ms electronics range visit www.mselectronics.co.uk or call 0333 666 1176.

Alternatively, email techsupport@mselectronics.co.uk
Additional copies of this product guide can be downloaded from our website.

Product Warranty

M.S. Electronics guarantees all their products against manufacturing defects for 5 years from the purchase date. If your product is found to be faulty, M.S. Electronics will, at their discretion, repair or replace the product free of charge.

Note

Any modification or damage to the outer casing of the thermostat, as well as any damage to the product due to abuse or incorrect wiring may invalidate the guarantee.



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