

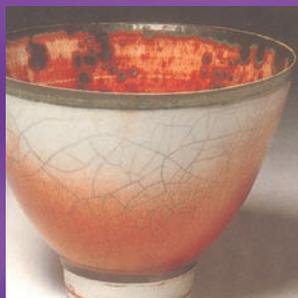


Midland Industrial Temperature Solutions Company



3300 Program Controllers

Program Controllers



# 3300 Program Controllers

**Ideal for controlling:- Heat Treatment Ovens, Furnaces, Kilns, Environmental Chambers and Sterilisers.**

## Mimic display and segment numbering

provide easy operator interface when entering program values as well as following the program as it proceeds through the firing process.

**Bright LED displays** are a design feature of the 3300, allowing clear user interface in set-up or operating mode.

**Arrow keys** allow easy program entry, review and adjustment to the program, prior to and during firing.

**Pause function** allows the operator to manually hold a ramp or extend a dwell as the program runs its course, thus allowing an element of user intervention if required. (This function can be inhibited or time limited if required).

**Easy to install** robust ABS case.

**A Security lock** is hidden behind the front face of the controller, allowing protection against unauthorised intervention.

**Information**, pressing this key will provide the following information

- Program number
- Energy used
- Immediate ramp target temperature
- Dwell time remaining

**Event function** enables an external device (damper, fan or safety interlock for example) to be operated on / off at any stage of the program. This can be preprogrammed or instigated manually via the controller's front panel (Only available on the Event and Multi-zone models).



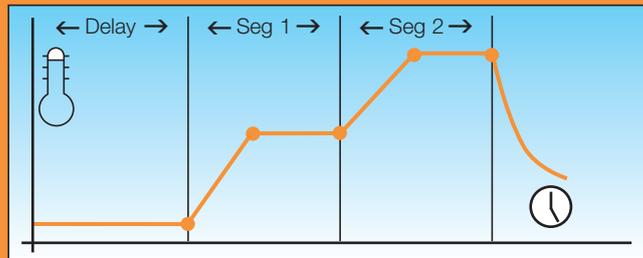
# 3300 - The perfect Solution

Choice of five models all with additional optional features, ensuring you only pay for the features you intend to use.

## Model Line-up

### 3300/1

1 Program  
2 Segments



Simple single program controller with Delay, 2 Ramps and 2 Dwells.

### 3300/2

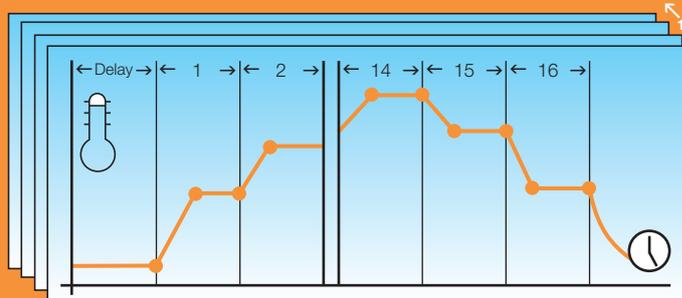
10 Program  
4 Segments



10 Program controller with Delay, 4 Ramps and 4 Dwells, ideally suited for firing ceramics.

### 3300/3

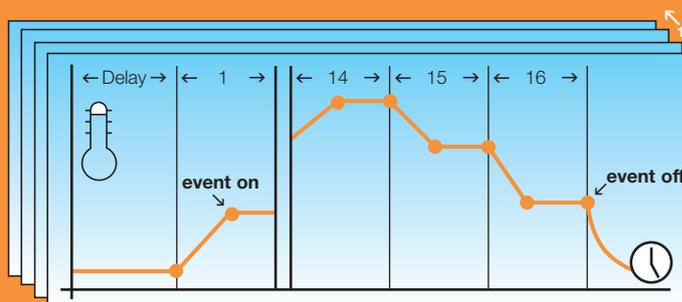
10 Program  
16 Segments



Delay, 16 Ramps and 16 Dwells, for more complex applications, often used in the manufacture of glassware.

### 3300/4

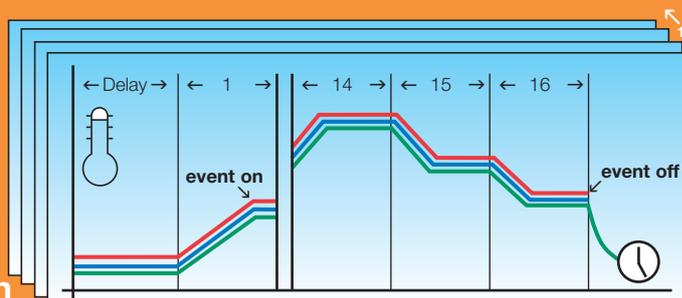
10 Program  
16 Segments  
+ Event



Similar to the 3300/3, but with the added refinement of an Event Function, allowing manual or programmed control of a damper or similar external device.

### 3300/5

10 Program  
16 Segments  
Event,  
Multi-zone  
and Policeman  
Controller



As well as offering an Event Function, the 3300/5 controller is used on larger Ovens and Kilns where the load is split into individual zones for improved temperature uniformity. In addition, an over temperature Policeman Controller is fitted as standard.

# 3300 Simple, powerful and flexible

**Simple to use** the 3300 range of controllers has been developed to provide accurate programming of complex firing processes in a simple user-friendly design.

**Powerful Programming** accuracy and flexibility are key functions of the 3300, satisfying most processes that require a series of regulated controlled temperature ramps and timed controlled sequences.

**Flexibility** is the key to the design and use of the 3300 program controller. The operator just selects or by-passes the ramp or dwell and then selects the next segment in the sequence to daisy chain the required number of ramps and dwells until the desired control program is created.



**Delayed start** enables the operator to easily select the time when the program is required to start enabling the program to run without manual involvement.

**Ramp & Dwell** rates / times can easily be entered using the arrow keys.

**Ramp rate** can be entered in °C/°F per Hour or in Hours and Minutes.

**Energy usage** can be displayed using the information key. In addition this key will display additional program information while the controller is running.

**Stored programs** can be simply accessed using the arrow keys. Preset values can be easily modified also by using these arrow keys.

**Error messaging** is a feature of the 3300 allowing the operator to fault find in the event of an unforeseen problem.

**Powerful 30A relays** are provided for the main control and alarm operation. This enables the controller to switch up to 30A loads without the requirement of secondary switching devices. Alternatively an SSR output can be supplied. **1**



**30A alarm output** is also supplied as standard. The alarm can be configured to operate as a band or over-temperature feature, the band /over-temperature values are configurable to suit your requirements.

**Over-temperature policeman controller** can be fitted as an optional extra. This is connected to a separate thermocouple and offers additional protection in the event of an over-fire.

**The Multi-zone control** version of the 3300 allows two additional independent zones to be controlled simultaneously thus ensuring temperature uniformity. This version of the 3300 includes the over-temperature controller as standard.

**Configurable functionality** is a principal feature of the 3300 controller range. They can be configured to suit your exact recipe of requirements: - Alarm Strategy - Alarm Value - Kw Hour rating. At an engineering level, accessed by special code enables additional configuration - Thermocouple Input - Temperature units, °C / °F - Ramp rate / Ramp time - Set point limit - Independent error messages, off / on - Pause time, off / on / time limited and control and zone control functions.

**Easy to Install** designed for wall or bracket mounting and available with a range of plug-in connectors. **2**



# 3300 Model Line-up

| Model   | 3300/1   | 3300/2   | 3300/3   | 3300/4   | 3300/5 |
|---|----------|----------|----------|----------|--------|
| <b>Programs</b>   | 1        | 10       | 10       | 10       | 10     |
| <b>Segments</b><br>(Number of Ramps & Dwells)   | 2        | 4        | 16       | 16       | 16     |
| <b>Internal Policeman Controller</b>  | Optional | Optional | Optional | Optional | Fitted |
| <b>Event</b>  |          |          |          | Yes      | Yes    |
| <b>Zone Control</b>   |          |          |          |          | *Yes   |
| * Zone Controller = 3 Zone + Alarm / 3 Zone + Event / or 2 Zone + Alarm + Event (User configurable) |          |          |          |          |        |

| 3300 Specification                |  |
|-----------------------------------|--|
| <b>Supply</b>                     | 230V +/- 15% or 115V +/- 15%   |
| <b>Selectable Input</b>           | R, S, N, K   |
| <b>Output 1 &amp; 2</b>           | 30A Relay or SSR (Control and Alarm)   |
| <b>Output 3 &amp; 4</b>           | 6A Relay or SSR (Event and Zone)   |
| <b>Control Range</b>              | 0 - 1600°C (R,S) or 0 - 1300°C (N,K)<br>0 - 2912°F (R,S) or 0 - 2372°F (N,K)           |
| <b>Main Display</b>               | LED  |
| <b>Segment Display</b>            | LED  |
| <b>Mimic Display</b>              | LED  |
| <b>Display Units</b>              | °C / °F  |
| <b>Security Lock</b>              | Yes  |
| <b>Error Messaging</b>            | Diagnostics for Fault Finding (Configurable On/Off)                                    |
| <b>KW Hour Display</b>            | Yes  |
| <b>Delay</b>                      | 0-99 Hour 59 Min   |
| <b>Ramp</b>                       | 1 - 1000°C per Hour or Full<br>1-1832°F or Full or<br>Time (Hours and Minutes)         |
| <b>Dwell</b>                      | 0 - 99 Hour 59 Min   |
| <b>Set Point Limit Adjustment</b> | Yes  |
| <b>Adjustable Alarm</b>           | Band or<br>Over Temperature  |
| <b>Pause</b>                      | Off<br>On or<br>Time Limited   |
| <b>Case</b>                       | White ABS  |
| <b>Cable Connection</b>           | Available with Single or Dual Cable Gland Plates<br>both Plates having 16 / 20mm Holes |
| <b>Size</b>                       | 190 x 120 x 78 mm  |
| <b>Weight</b>                     | 0.8 Kg   |
| <b>CE</b>                         | Yes  |

# How to Order

| Model  | Supply | Thermocouple | Output | Configuration | Policeman Controller |
|--------|--------|--------------|--------|---------------|----------------------|
| 3300/1 | 230V   | R            | RELAY  | DEFAULT       | PC/NO                |
| 3300/2 | 115V   | S            | SSR    | SPECIAL       | PC/YES               |
| 3300/3 |        | N            |        |               |                      |
| 3300/4 |        | K            |        |               |                      |
| 3300/5 |        |              |        |               |                      |

## EXAMPLE:

| Model  | Supply | Thermocouple | Output | Configuration | Policeman Controller |
|--------|--------|--------------|--------|---------------|----------------------|
| 3300/2 | 230V   | R            | RELAY  | DEFAULT       | PC / YES             |

# Other Products

- INDICATORS
- THERMOCOUPLES
- CABLES
- FITTINGS



We Accept

