

Cromartie



Wifi Controller/ Temperature Programmer

FEATURES

- 32 fully adjustable programs
- 32 segments per program
- 1 controlled heating / cooling ramp + 1 soak per segment
- Optional WiFi & USB interface for datalogging, remote monitoring & control
- Ideal for glass or ceramics use
- Soak times up to nearly 100 hours
- Ramp rates from 1 to 999°/hour + full
- Programs can be reviewed or altered while firing
- Program Pause & Segment Advance facilities
- Keyboard lockable
- Delayed start facility - up to 4 days
- Power failure recovery
- Energy used display
- Worldwide operation
- °C/°F switchable display
- Standard alarm / safety relay with alarm buzzer
- Optional event / damper / fan relay
- Pre-loaded with 10 standard ceramics programs & 9 standard glass programs which can be altered as required

DESCRIPTION

Our Wifi controller is a small easy to use ergonomically designed controller in a hand-held case. It is supplied with a wall mounting holster bracket and a flexible lead and plug as standard. Bright yellow LED displays are fitted. It is designed to control single zone electric kilns.

It is suitable for worldwide use with a universal power supply and selectable °C/°F operation.

It has an option for a 3rd relay to operate an auto-damper or a fan. This relay can also operate in a flexible event mode.

There is also an option for a WiFi / USB interface for remote monitoring & control + local & remote datalogging.



DESCRIPTION

GENERAL

A 32 -program controller designed for glass, ceramics & pottery use. Each program can have from 1 to 32 segments. It is fully adjustable with a detailed 4-lamp mimic display & continuous display of segment number. Each segment comprises of a ramp followed by a soak. Ramps can be heating or cooling. It executes a controlled ramp to the soak temperature where it dwells for the required period then executes the next segment. The end of the program is marked by selecting 'End' while entering a ramp rate. Natural cooling then follows.

SETTING UP

Press the ► key to display the program number – this can be changed if required with the ▲ & ▼ keys. To change any of the controller's settings press the ► key (or reverse with the ◀ key) until the required lamp on the mimic display flashes. The current value will be displayed together with a temperature, ramp rate or time icon. Change the displayed settings with the ▲ & ▼ keys which can be held down for acceleration. All settings are remembered while the controller is powered off. The keyboard can be locked to prevent tampering.

FIRING

The ►■ key is used to commence a firing when an optional start delay can be entered. The progress of the firing is shown on the mimic display. If a start delay has been set then the delay time remaining will be displayed. During firing the settings can be reviewed and altered if required, the program can be paused/resumed or a segment can be advanced. Also the current set-point and the current energy used can be viewed by pressing the ◀ key. During soaking the soak time remaining and the soak temperature are alternately displayed. In the event of a power failure the controller will intelligently re-commence firing when power returns.

CONFIGURATION

Can be configured to the kiln using a configuration menu. The thermocouple type and kiln power rating (for the energy used function) can be configured together with °C/°F operation. Other installer-configurable items include power failure recovery enable/disable, error message handling and control parameter adjustments.

The controller supplied with a moulded ABS holster style wall mounting bracket and a flexible lead & plug.

SPECIFICATION

Electrical

Power supply

Line voltage range: 90 - 264VAC
Frequency: 50/60Hz

Power: Controller 4VA (max)
Switched outputs: 125VA

Fuse: 3.15A slow-blow HRC
20mm x 5mm ceramic

Control Relays (2 or 3)

Contact type: SPST NO
Switched Live -
Line voltage output
@500mA max

Lead & Connector

2m flexible grey polyurethane lead
Harting 7D plug

(Other lead & connector options available)

Enclosure

Material: ABS flame retardant UL 94V-0
Sealing: IP50
Size: 80/62mm(W), 165mm(L), 28mm(D)
Colour: Black RAL9011

Temperature

Temperature setting

Range: 0 to 1400°C (R/S) 0 to 1250°C (K/N)
Resolution: 1°C

Control Accuracy

P.I.D. Control (adjustable)
Reading accuracy: ±0.25% FSD ±1 digit

Thermocouple

R,S,K & N type (selectable)

Cold Junction Compensation

Yes - precision semiconductor type

Time

Start delay range: 00:00 to 99hr 59min
Soak time range: 00:00 to 99hr 59min
Resolution: 1 min

Programs

32 programs each with 1-32 segments.
1 ramp & 1 soak per segment
ramp rate: 1 to 999°/hour or full power
Ramps can be heating or cooling

External Interface Option

USB 'A' socket for connecting USB Flash memory drive (USB1, USB2 or USB3).
WiFi module - connects to a local WiFi router by WPS (router pushbutton) or AP mode.

Environmental

Operating temperature range: -10°C to +55°C
Storage temperature range: -10°C to +55°C

Error Handling

Thermocouple failure detection
Thermocouple reversal detection
Heater failure detection
Kiln over-temperature detection
Room over-temperature detection
Lock-up on error facility
Audible Alarm (buzzer)

Other

Keyboard lock facility + indicator
Program running & kiln heating-on indicators
Energy used display
Program pause & segment advance features

Weight

Instrument + wall bracket + standard cable: 0.410kg
Shipping weight: 0.530kg

Wall Bracket

Material: ABS flame retardant UL 94V-0
Colour: Black RAL9011
Fixing slot centres (vertical): 70mm
Fixing slot size: 8mm x 4mm

FURTHER DETAILS

This datasheet and the user handbook can be downloaded from our web site at:
www.cromartiehobbycraft.co.uk

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