



ARIESPLUS

EASY. PRECISION. CONTROL.

THE NEW TOUCH SCREEN CONTROLLER

Introducing the AriesPlus touch screen temperature controllers: designed for precision, they offer programmable control with up to 99 segments, configurable as ramp, step, or dwell, and can manage relay operations. These controllers provide exceptional temperature accuracy across a wide range through advanced multi-temperature tuning. They also feature process data logging to internal memory and allow for remote viewing on any browser without the need for software installation.

THE NEW TEMPERATURE CONTROLLER AriesPlus

INTUITIVE NAVIGATION AND MORE

The AriesPlus touch screen controllers offer programmable control in which 99 segments may be set as ramp, step or dwell and may also be configured to control relays.

The ARIES series provides a capacitive touch screen interface giving intuitive access to a comprehensive menu for selection and editing of program profiles; scheduling of programs at a defined day and time; data logging of setpoint and actual temperature; localization of language; user level security. The ARIES series can also store and retrieve 50 unique program profiles.

STANDARD FEATURES

- | 7.0" colour capacitive touch screen
- | Setpoint & program profile control
- | Data logging to internal memory
- | 7-day time scheduler
- | Ethernet connectivity
- | Remote connection via a browser
- | Panel mounted USB socket
- | User level security
- | Settings including 9 languages

OPTIONAL FEATURES

- | Over-temperature control with clear alarm indication for unattended operation and valuable load protection
- | Program segment events activate options like switching gas flow or starting cooling fans
- | Alarm options enable door locking and process accuracy monitoring

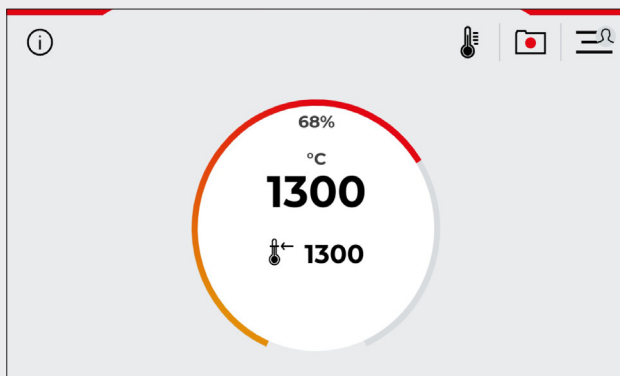
Data-logging is to internal memory which can be downloaded to the adjacent USB port or downloaded to a PC if connected on a network. Ethernet communication is fitted as a standard feature.

Connect to the AriesPlus controller using any computer browser (no software installation necessary) for:

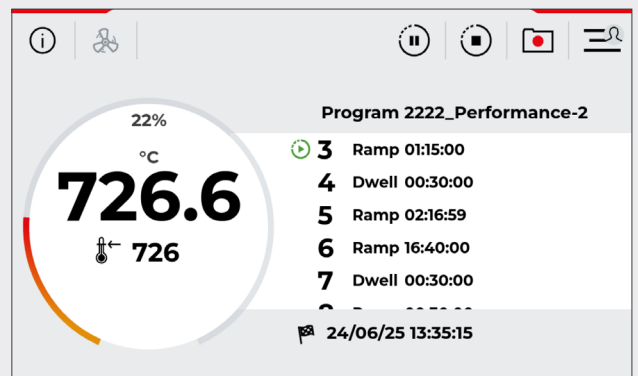
- | Remote viewing
- | Login and navigate
- | Create and edit programs
- | Data-Logging download to PC



SINGLE ZONE



Single-zone control with datalog recording icon display



Home screen with program running, showing the current segment and program end time & date

THE NEW TEMPERATURE CONTROLLER AriesPlus

CASCADE CONTROL

This feature offers the benefit of precise temperature control of the load. A standard controller operates by sensing the temperature close to the elements. With cascade control the controller's operation includes a second control thermocouple, which is used to sense the temperature of the load.

THREE ZONE CASCADE CONTROL

As in single zone furnaces, cascade control allows faster heating of the furnace load and more precise control of the load temperature.

THREE ZONE CONTROL

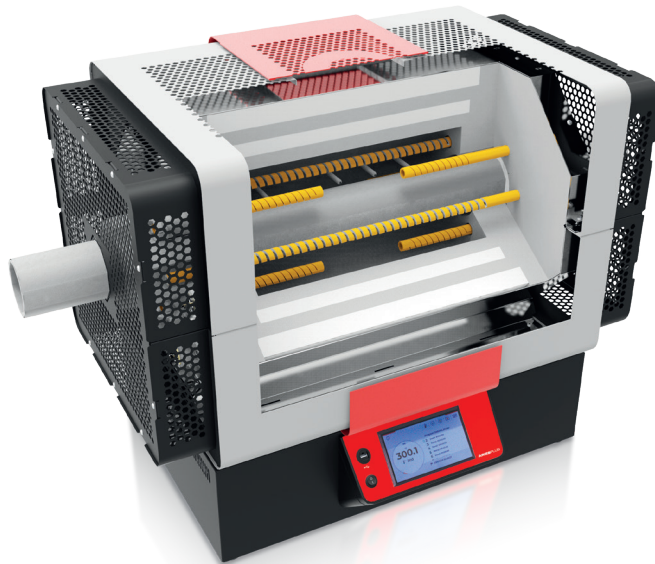
This has the function in 3-zone tube furnaces of extending the length of the uniform heated zone.

INDEPENDENT CONTROL

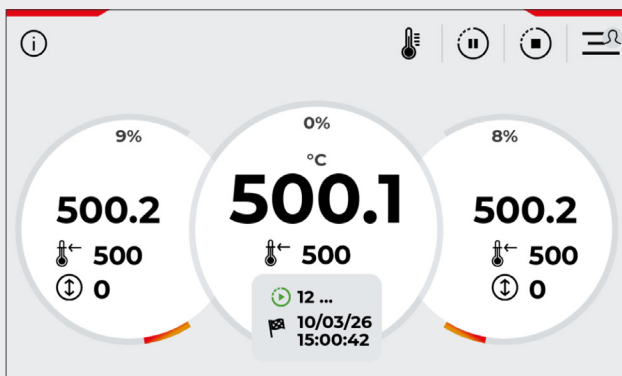
This configuration comprises independent controllers, each with an independent thermocouple in its respective zone.

RETRANSMISSION OF SET POINT

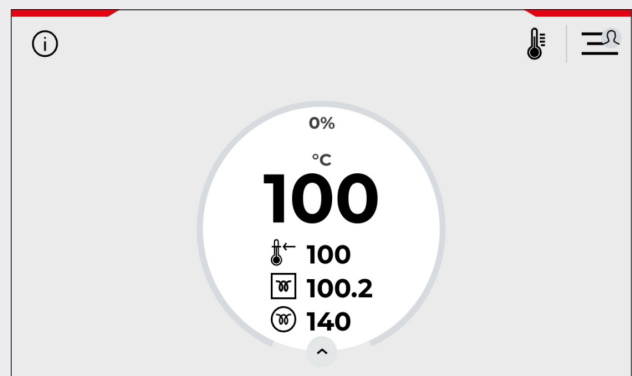
This is the standard method of control for all Carbolite 3-zone furnaces. When the operator adjusts the setpoint of the centre zone controller, the setpoint of both end zones are automatically set to the same value. When a program is run in the centre zone all zones will automatically follow the program. Each controller has one thermocouple positioned with the tip close to the centre of each zone.



THREE ZONE AND CASCADE



Three zone home screen with program running



Single zone home screen with cascade control

THE NEW TEMPERATURE CONTROLLER AriesPlus

EVERYTHING UNDER CONTROL

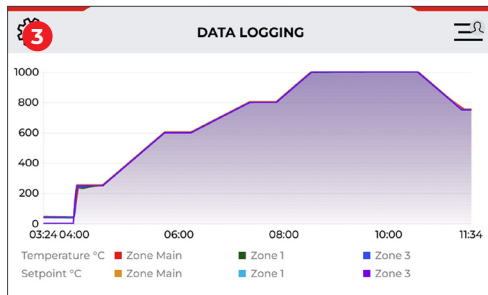
1 PROGRAM

NEW IMPORT

Aluminium Alloy Temper	Anneal_03
Carbon Steel Temper	Ceramic A807 Experiment
Ceramic_firing_1530	Ceramic_firing_1550
Debind and Sinter 01	Debind and Sinter 02

2 SETTINGS

Zone Main	Logging
Zone 1	Auto Record Mode
Zone 3	Batch Identifier
Time Span	48:00:00



4 TIME SCHEDULER

State	Day	On Time	Off Time	Temperature / Program
<input type="checkbox"/>	Monday	05:00	16:00	650 °C
<input type="checkbox"/>	Tuesday	05:00	16:00	650 °C
<input checked="" type="checkbox"/>	Wednesday	05:00		Debind and Sinter 01
<input type="checkbox"/>	Thursday	05:00	16:00	650 °C
<input type="checkbox"/>	Friday	05:00	16:00	650 °C

5 AUTO-TUNE CONFIG

#	Temp °C	Kp	Ki	Kd	Kc	Start Temp °C
1	120	4.227	0.003	860.194	0.492	35
2	200	4.937	0.007	564.283	3.091	120
3	290	4.929	0.012	327.105	5.512	200
4	390	4.885	0.018	217.01	8.354	290
5	650	6.286	0.047	139.551	19.882	390

6 COMMUNICATION

DHCP

UPDATE NETWORK

- 1 PROGRAMMING**
Manage up to 50 programs with USB/PC import/export; features include duplicate, rename, favorite, and delete.
- 2 DATA LOGGING**
Set logging rate from 10 seconds; features batch ID and auto-logging on program start.
- 3 LIVE PROCESS**
View live process graphs for up to 48 hours with pinch zoom; download by batch or date/time range.
- 4 7 DAY TIME SCHEDULER**
Schedule daily heating or program runs at specified times.
- 5 AUTOTUNE**
Optimize for accurate operation across all temperatures; retune for specific processes.
- 6 REMOTE NETWORK CONNECTION**
Ethernet-ready with DHCP or manual connection options.

LEADING HEAT TECHNOLOGY

CARBOLITE is a leading manufacturer of high temperature furnaces and ovens from 30°C to 3000°C. We are the technology leader in tube furnaces as well as vacuum and special atmosphere technology. With more than 80 years of experience in thermal engineering, CARBOLITE develops innovative solutions trusted by research laboratories, pilot plants and manufacturing sites around the world.

CARBOLITE products are defined by their superior energy efficiency as well as excellent reliability and use of high-quality components.

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