

2040

Dual Loop Controller



- Two Independent Control Channels
- Programmable Control, Alarm or Overtemp Channels
- Field Selectable Relay or SSR Drive Outputs
- Flexible Third Output, 10 Amp Relay
- Timer, Ramp/Soak and Idle/Run Functions
- Self-Tuning Using Artificial Intelligence
- ChromaSoft™ Compatible Digital Communications

Description

The 2040 temperature controller packs the sophistication and flexibility of two microprocessor-based controllers into one compact 1/4 DIN package. Because the 2040 requires only 4 inches mounting depth, it can capably solve control challenges in the most space-limited applications.

Applications

- Platens and Presses
- Furnaces and Ovens
- Temperature Control Panels
- Extruders
- Food Processing

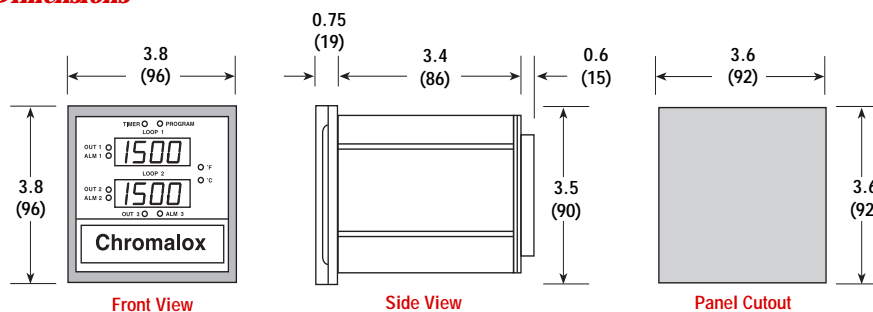
Features

- Two independent control loops may be field programmed

Loop #1	Loop #2
PID Temp. Control	PID Temp. Control
PID Temp. Control	Overtemp Control
Alarm/Overtemp	Alarm/Overtemp

- 2 sensor inputs can be independently field programmed as J or K thermocouple, or RTD.
- 2 each 8 Amp relay control outputs, field changeable to solid state relay (SSR) drives.
- Output #3, a 10 Amp relay, can be used for alarm or control.
- Integral Timer and Event Input eliminate the need for external timers and associated wiring.
- Simple 2-Segment Ramp/Soak Program can be easily configured.
- Ramp/Soak Control functions can be activated from front panel switches or remotely activated via the event input.
- Digital Communications allows operation using ChromaSoft™ Remote Operator Interface software, and can be networked with other Chromalox controllers. Optional RS-232, RS-422 and RS-485 digital communications are available.
- Rugged, Extruded Aluminum Housing and 4" Installation Depth

Dimensions



All Dimensions in Inches (mm)

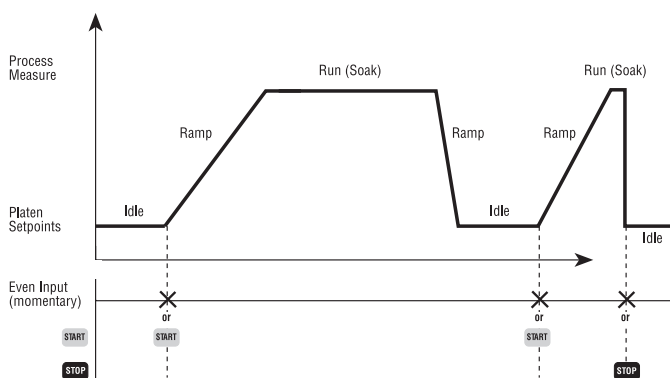
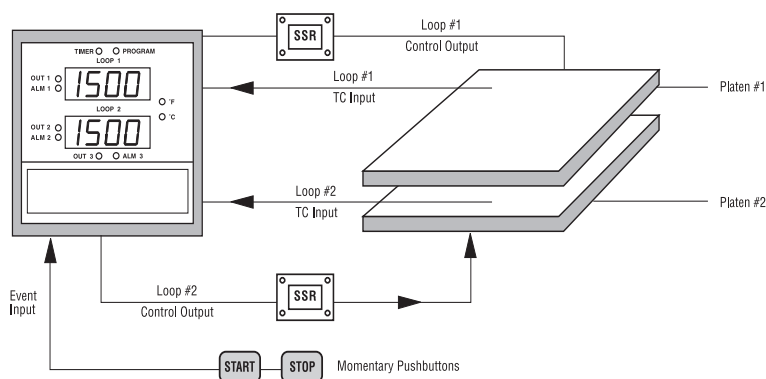
2040

Dual Loop Controller (cont'd.)

Application

The 2040's Run/Idle feature is used for a single ramp up and ramp down heating cycle, triggered by an external momentary switch or the controller's Start and Stop pushbuttons. The idle timer is set "continuous". The timers are set to ramp up, soak (at the run setpoint), and then ramp down to idle. The platen temperature remains at the idle setpoint until the external momentary switch or Start/Stop activates the program. The platen ramp to the run temperature, soak and ramps down to idle, thus completing the cycle.

Platen Control



Ordering Information

Complete the Model Number using the Matrix provided.

In Stock:

Model	PCN
2040-11000	306384
2040-11400	306392

Model Dual Loop Temperature Controller

2040 Two Channel Microprocessor-Based Temperature Controller with field selectable PID or ON/OFF control for each channel, Channels programmable as Control, Alarm or Overtemperature, Field Selectable J or K TC, RTD Input for each channel, Power-Up Self-Tuning, Hour-Timer Feature, Idle/Run Function, Two Segment Ramp/Soak, Auxiliary Output #3, °F or °C Readout, External Digital Event Input

Code Control Outputs - Channel #1 and #2

1 Two Relays—NO. Form A Contacts, 8 Amps @ 120/250 Vac, and 5 Amps @ 30 Vdc field selectable as SSR drive (solid state relay drive) 20 Vdc at 40 mA

Code Auxiliary Alarm Output #3

1 One Relay—NO. Form A Contact, 10 Amps @ 120/250 Vac, 10 Amps @ 30 Vdc, Configurable as common alarm, process enable or loop #2 control output

Code Auxiliary Input/Output Options

0 None
4 RS-232, RS-422 and RS-485 Digital Communications

Code

0 Add to complete model number

Code Sensor Inputs

0 J TC -100 to +1400°F
K TC -100 to +2100°F
RTD -200 to +1000°F

2040 - 1 1 4 0 0 Typical Model Number