

CONTROLLING MULTIPLE HEATING ZONES

Control multiple heaters from a single multipoint control panel

Application

Companies often require multiple surface heaters to heat large objects or control a heating process. Examples of equipment that may use multiple heating products include industrial ovens, hoppers, tanks, mixers, and pipe systems. Typically, each heater would be controlled to an identical temperature to complete the desired process. Some applications include industrial baking, composite curing, bulk solid drying, dry or wet chemical mixers or reactors, condensation prevention, and viscosity control.

Similar components may be used as part of a process that requires different temperatures at different locations throughout the process cycle. For example, minerals may be placed in a continuous batch oven to be heated to 150°F (66°C) for a certain period after which the minerals may be crushed into smaller pieces. These smaller pieces may then be added to a mixer and heated to 250°F (121°C) to remove additional moisture.

To efficiently maintain a process, technicians need to be able to monitor temperatures at a single location and know those temperatures are accurate. If they can not directly change setpoint temperatures, they lose efficiency and could potentially damage the heated products, which could increase costs and downtime.

Solution

BriskHeat's MPC2 Multi-Point Digital PID Temperature Controller can accurately and simultaneously control multiple independent applications with heaters up to 60 amps per zone for maximum versatility. The control system is fully configurable and allows the end user to choose number of zones, type of sensors, voltages, alarms, connection types, communications, and protections. Each controller can be individually programmed to operate in PID or On/Off modes, and are capable of running ramp/soak programs of up to 12 steps. Features and benefits include easy-to-read actual and setpoint displays in °C or °F, password protection, and three latching alarm options for added security and safety. Controllers have storage for up to 4 programs for easy repeatability, a large temperature range up to 999 °C or °F, and accuracy of 0.2% for improved performance. They can also be used indoors or outdoors. Additionally, these controllers are cULus and CE compliant.

The MPC2 temperature controller can be used with a wide variety of heaters including heating blankets, heating tapes, drum heaters, customer cloth jackets, cartridge and nozzle heaters, aluminum foil heaters, and more.

BriskHeat's LYNX[®] Temperature Control System is an alternative solution for control of multiple heating zones. Each Operator Interface can control up to 8 strings of 128 controllers for a maximum of 1,024 zones of heat.



Industries

Chemical Processing/ Extractions	Gas Handling
Composites/Epoxy/ Resins	Injection Molding/Plastics/ Rapid Prototyping
Food & Beverage Processing	Manufacturing
Gas & Oil	Semiconductor, Flat Panel, & Photovoltaic/Solar

Types of Users

Facilities Maintenance	Production
Process Engineers	Managers