BriskHeat®

Your Heating Specialist Since 1949

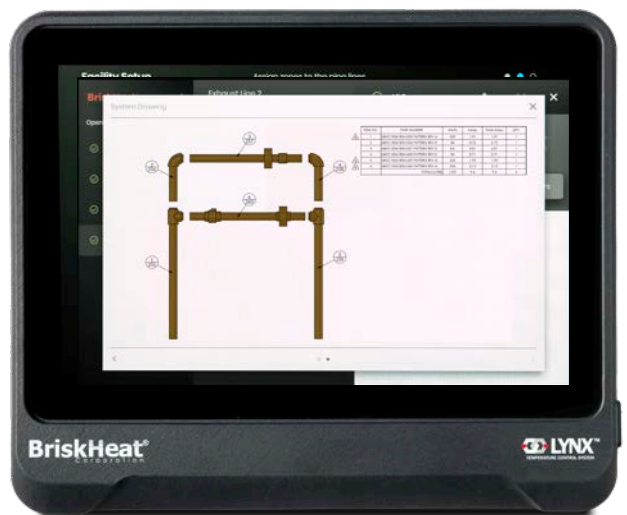# ◆ LYNX® TEMPERATURE CONTROL SYSTEM

Your Link to Process Perfection and Peace of Mind!

The LYNX® Temperature Control System is a state-of-the-art PID (proportional integral derivative) temperature control system comprised of up to 1,024 zones. Each heater (zone) can be individually controlled and monitored. This provides users the ability to track each unit's performance. Monitor each zone from the full-color touchscreen, the highly visible indicator lights, a remote system, or via email alerts. Extraordinary features and benefits coupled with incredible versatility meet your process expectations with this unique temperature control system.

► **1:1 PID control to EACH heater**

► **Can be used independently or as a system of up to 1,024 zones of control**

► **Easy to use Operator Interface (OI) and Temperature Control Modules**

► **Can connect to CMS via Modbus**

► **Sends email alerts**

► **Idle mode option saves energy and time during maintenance**

► **Provides complete control and system optimization for maximum precision**
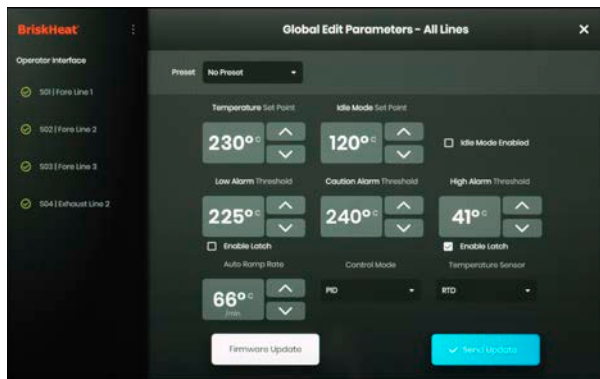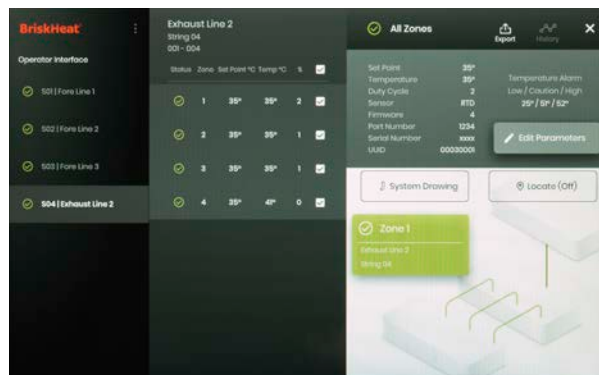

► **Historical graphing of temperature, duty cycle and current displays performance over time**
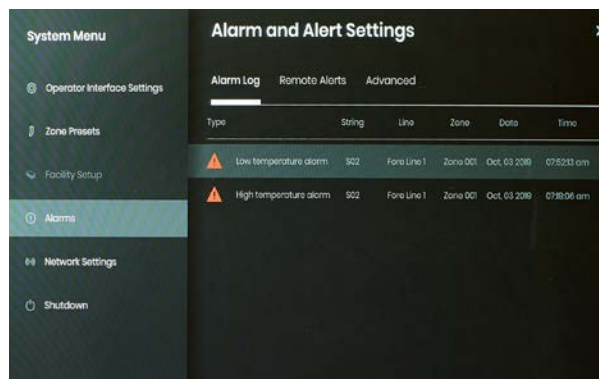

► **Controls up to 8 strings with up to 128 PID controllers per string for expandability**

► **Each string has individual dry contact for alarm to provide easier troubleshooting**

► **User-configurable graphical mapping and naming to match application provides ease of use**

► **Alarm history for diagnostics**

Features and Benefits

► **Large 10.1 in (25.7 cm) touchscreen enables easy monitoring and programming**

► **Wired or Wireless (WiFi) communications sends email alerts**

► **Modbus communications allows remote access and control via HMI**

► **Zone-locator feature enables user to easily identify specific modules**

► **USB port simplifies ability to upload firmware and download data**

► **Global programming saves time**

▶ **1-to-1 control for each heater promotes uniformity**
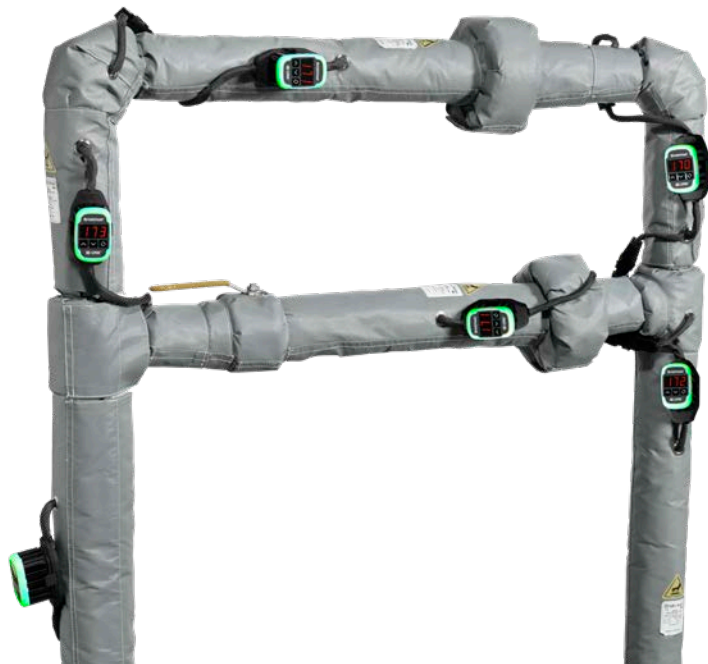
▶ **Fully functional PID controller in a compact design to fit in tight spaces**

1.7 in (43.2 mm)

2.97 in (75.4 mm)

1.95 in (49.5 mm)

▶ **Can be used with a wide variety of heaters**

LYNX® PID DIGITAL CONTROL SYSTEM HIGHLIGHTS

▶ Use controllers independently or in a system for maximum versatility

▶ Highly visible multi-color display indicates operating status

▶ Select between latched and unlatched alarms

Features and Benefits

▶ "Smart controller" provides self diagnosis of heaters and sensors

▶ 3-button touchpad provides ability to program at module

▶ Large 3-digit display makes temperature easy to see

▶ PID with auto tuning allows for tighter control of your process

▶ Low and high-temperature alarms gives additional control and peace of mind

Specifications

Temperature Control Range: 32°F to 1100°F (0°C to 593°C)

Display: Red LEDs show current temperature in °F or °C

Sensor Input:

— Type-J and Type-K Thermocouples

— PT100-RTD

Accuracy:

— RTD: ± 0.45°F + 0.125% of temperature in °F (± 0.25°C +0.125% of temperature in °C)

— J-Thermocouple: ± 1.96°F (1.09°C)

— K Thermocouple: ± 2.03°F (1.13°C)

Alarms: Multi-color LED display with highly visible viewing

Power Cord: Harness are sold separately; available in several lengths, with or without communications cable

Connections: Control modules require docking station (included with some heaters or separate harness for standalone use); see ordering information for options

Minimum Voltage: 100 VAC

Maximum Voltage:

— 277 VAC (North America)

— 240 VAC (Worldwide)

Maximum Continuous Amp Load per Zone:

— 7 amps at 77°F (25°C) ambient

— 4 amps at 104°F (40°C)

Maximum Continuous Amp Load per Power Harness: 12 amps (Power booster cables available to increase amp load per string)

Communication Method: Modbus RTU over RS-485. Cable is included on some power cord harnesses for communication to Operator Interface or CMS; Modbus TCP/IP connection on Operator Interface for communication to CMS

Communication Maximum Length: 98 ft (30 m)

Enclosure Dimensions:

— Operator Interface: 10.9 in wide x 9.0 in high x 3.2 in deep (276 mm wide x 229 mm high x 81 mm deep)

— Module: 1.95 in wide x 2.97 in high x 1.7 in deep (49.5 mm wide x 75.4 mm high x 43.2 mm deep)

Ambient Temperature Range: 32°F to 130°F (0°C to 54°C)

Storage Temperature Range: -40°F to 140°F (-40°C to 60°C)

Relative Humidity: 0 to 80% (non-condensing)

Altitude: Up to 6,562 ft (2,000 m)

Ingress Protection Rating:

— Operator Interface: IP10

— Docking Station and Control Module: IP20

Control Module

Part No.: LYNX-MOD - PID Temperature Control Module

Operator Interface

A complete **LYNX** Temperature Control System typically includes an Operator Interface capable of controlling up to 8 strings of heaters (1,024 total zones). Operator Interfaces are available with different power plugs and can be used at any voltage between 100-277 VAC, 50/60 Hz.

Part No.: LYNX-OI-10   **X**
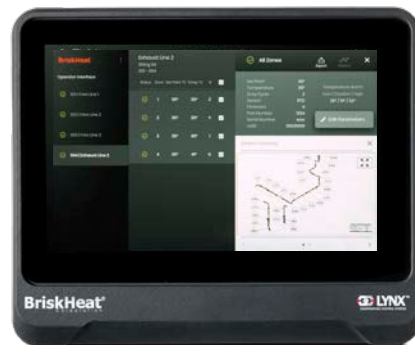
Power Plug
A = NEMA 5-15   **E =** UK Type-G
B = Ferrule ends   **F** = NEMA L6-15 twist-lock L6-15
C = Schuko CEE7/7   **I** = IEC Type I
D = NEMA 6-15

Power and Communication Harness

Each Temperature Control Module receives power from a docking station which also provides power to the heater. BriskHeat cloth heating jackets typically include a prewired docking station for fast installation. Other heaters may be custom ordered with a prewired dock and temperature sensor. If the heater includes a dock, select the power harness in the length required with the appropriate power plug.

Part No.: LYNX-HN-   **L**   **X**

Cord Lengths
60 = 6 ft (1.8 m) Power, no communication cable
66 = 6 ft (1.8 m) Power, 6 ft (1.8 m) communication cable
12 = 12 ft (3.6 m) Power, 12 ft (3.6 m) communication cable
Other lengths available upon request.

Power Plug
A = NEMA 5-15   **E** = UK Type-G
B = Ferrule ends   **F** = NEMA L6-15 twist-lock
C = Schuko CEE7/7   **I** = IEC Type-I
D = NEMA 6-15

Docking Station Assembly

For heaters without a dock, select an assembly with appropriate receptacles. This is determined by the heater plug and sensor type used in the system. Some freestanding dock assemblies include both the receptacle and mating plug to connect to the heater. Temperature sensor receptacles accept standard or mini sizes. Docking station assembly requires a power harness and module for operation.

Part No.: LYNX-DOC1-   **S**   **X**

Temperature Sensor
J = Type-J Thermocouple
K = Type-K Thermocouple
R = RTD

Heater Receptacle
A = NEMA 5-15R   **G** = IEC13 with IEC14 mate
D = NEMA 6-15R   **L** = ML-2R Mini-twist and mate

Other accessories like extension cables, stands, "Y" power booster cables, and temperature sensors are available. See BriskHeat product catalog and website for options.

LYNX® TEMPERATURE CONTROL SYSTEM

LYNX has the flexibility to be used in a variety of applications with a wide range of heating products. BriskHeat Corporation's Application Book includes examples of many applications with additional documents available at the LYNX resources tab. www.briskheat.com/applications/application-book.html

Below are samples of applications where LYNX is the solution:

Some Typical Applications

- Deposition and Etch Processes
- Gas Delivery System Heating
- Gas Line Heating for Solar Cell Production
- Food Shortening Warming
- Perfume & Flavor Viscosity Control
- Brewery Lab Flavor Testing
- Scientific/Analytical Instrumentation
- Particle Accelerator
- Vacuum Bake-Out
- Wet Laboratory Heating
- Dry Chemical Processing
- Cosmetics Process Heating
- Laboratory, and Research and Development
- Valve, Pump and Individual-Object Heating
- CBD Distillation

LYNX® Sets available

Includes everything you need to plug-and-play.
See https://www.briskheat.com/lynxtm-temperature-control-set.html for details

ABOUT BRISKHEAT

BriskHeat offers a full range of surface and immersion heating solutions. We help our customers decrease downtime, increase throughput, and maximize profits. Large projects or small, high volume or low, domestic or worldwide, BriskHeat stands by to help you with any surface or object heating application you might encounter. With an accessible staff of sales and application engineers experienced at helping you find the most economical solution for your needs, BriskHeat is your heating specialist.

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