



# BEDROS™ Hot Runner Controller

## For Medium-Sized Multizone Applications

Athena's new Bedros Hot Runner control system offers 8 to 32 zones of microprocessor based control. The system delivers more functionality with a full-featured easy to use touch screen that simplifies single and multi zone system setup with mold storage recipe capabilities.

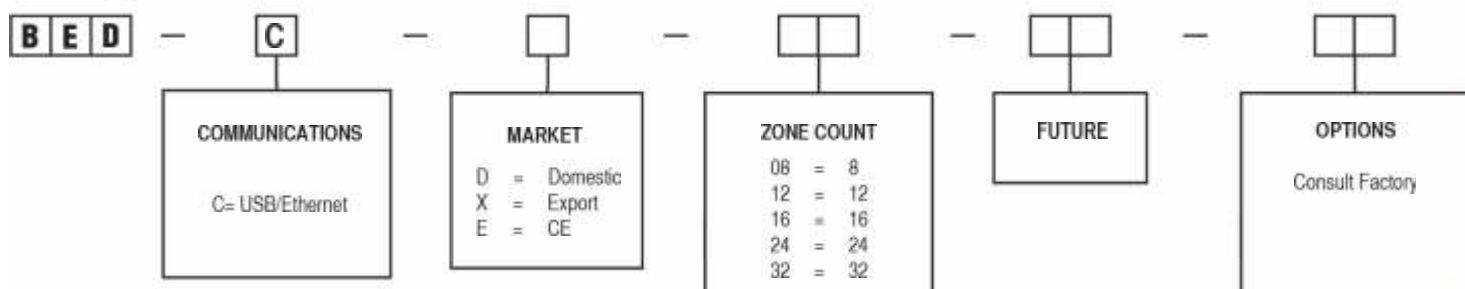


## Features and Benefits

- ▲ Compact Package Design
- ▲ 8 to 32 Zones of Control with 15 Amps Per Zone
- ▲ A User-friendly Color Touch Screen with Intuitive HMI and Built-in Buttons for Joy Stick Operation
- ▲ Accepts "J" or "K" Thermocouple Input (Ungrounded only)
- ▲ CompuStep Bake Out Feature Prevents Moisture at Startup
- ▲ Built-in Loop Break, Short, Open and Reverse Thermocouple
- ▲ Current monitor feature displays average current to load
- ▲ Adjustable Setpoint Limits
- ▲ "Boost" Mode for Temporary % of Power Output Increase
- ▲ USB or Ethernet Communications
- ▲ Remote Input Standby Function
- ▲ Remote Alarm Output Contacts
- ▲ Mold Storage Recipe Capabilities

# BEDROS

## Ordering Information



# Technical Specifications

## Operating Limits

Absolute Voltage Limits	85 to 265 Vac
Input Line Voltage	Nominal 100 to 240 Vac
Ambient Temperature	32 to 122°F (0 to 50°C)
Relative Humidity Tolerance	90%, non-condensing
Frequency	50-60 Hz

## Performance

Auto Control Mode	CompuCyle® system (PWM, 200msec)
Control Accuracy	+/- 0.1°F (+/- 0.1°C) dependent on the total thermal system
Temperature Stability	+/- 0.5% of full scale over the ambient range
Calibration Accuracy	Better than 0.2% of full scale
Power Response Time	Better than 400ms
Process Sampling	100ms
°F/°C	Field Configurable
CompuStep® System Control Mode	PWM
CompuStep® System Duration	Approximately 5 min.
CompuStep® System Output Voltage	Steps approximately from 25Vrms with 240 Vac line output, phase fired
CompuStep® System Override Temperature	200°F (93°C)
Operation Mode Priority	a: T/C open, T/C reverse, Shutdown and open heater override CompuStep® b: Manual mode overrides T/C open, T/C reverse

## Inputs

Thermocouple (T/C Sensor)	Type "J" or "K" ungrounded
External T/C Resistance	Max. 100 ohms for related accuracy
T/C Isolation	Isolated from ground and supply voltages
Cold Junction Compensation	Automatic, better than 0.02°F/°F (0.03°C/°C)
Input Impedance	10 megohms
Input Protection	Diode clamp, RC filter
Input Dynamic Range	Greater than 999°F (537°C)
Common Mode Rejection Ratio	Greater than 100db
Power Supply Rejection Ratio	Greater than 70db

## Outputs

Voltages	240 Vac nominal, single phase 100 Vac available
Power Capability	15 amperes, 3600 watts @ 240 Vac per zone
Overload Protection	Triac and load use high speed fuses Both sides are fused (GBB)
Power Line Isolation	Optically and transformer isolated from ac lines. Isolation voltage is greater than 2500 volts
Output Drive	Internal solid state triac

## Human Interface (HMI)

Color Touch /screen (6" x 4")  
Summary of all zones including process values and set points  
Configure single or multiple zones  
Zone Group Naming  
Mold Storage Capabilities  
Network Communications  
Built-in Buttons for joy stick



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