

RMB/12 Non-Modular Hot Runner Controller

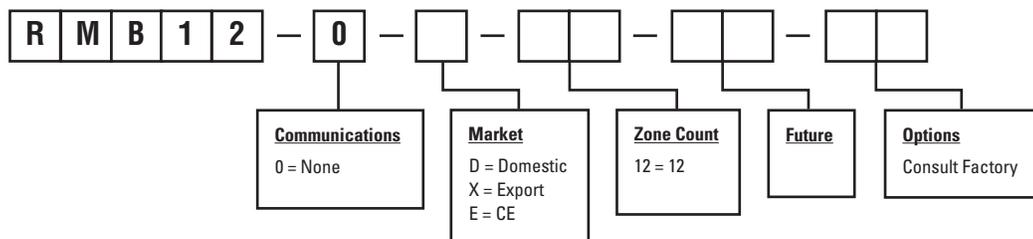


Hot Runner Temperature Control for 12 Zones

Athena's new RMB/12 Non-Modular Hot Runner control system offers 12 zones of microprocessor-based control. The system delivers more functionality with a full featured easy-to-use Operator Keypad/LCD display and 6 discrete indicators for Heat, Boost, Closed Loop, Open Loop, Idle, and Alarm.

- ▲ Compact package design
- ▲ 12 zones of control with 15 amps per zone
- ▲ Accepts "J" or "K" thermocouple input, grounded or ungrounded
- ▲ CompuStep bake out feature prevents moisture at startup
- ▲ Built-in loop break, short, open, and reverse thermocouple
- ▲ Adjustable set point limits
- ▲ "Boost" made for temporary % of power output increase
- ▲ Remote input standby function
- ▲ Remote alarm output contacts
- ▲ Fan cooled

Ordering Information



RMB/12 Non-Modular Hot Runner Controller

Technical Specifications

Technical 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 Specifications

| | |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Auto Control Mode | CompuCycle system (PWM, 200 msec) |
| Control Accuracy | ± 0.1°F (± 0.1°C) dependant 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 400 ms |
| Process Sampling | 100 ms |
| °F/°C | Field Configurable |
| CompStep System Control Mode | PWM |
| CompuStep System Duration | Approximately 5 min |
| CompuStep System Output Voltage | PWM % with zero cross |
| CompuStep System Override Temp | 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 |

Dimensions

| | |
|--------|---------|
| Height | 6" |
| Width | 22-1/4" |
| Depth | 13-1/2" |
| Weight | 20 lbs. |

Input Specifications

| | |
|------------------------------|----------------------------------------------|
| Thermocouple (T/C Sensor) | Type "J" or "K" grounded or ungrounded |
| External T/C Resistance | Max. 100 ohms for rated 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 100 db |
| Power Supply Rejection Ratio | Greater than 70 db |

Output Specifications

| | |
|----------------------|------------------------------------------------------------------------------------------------|
| 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)

(2) Operator keypads each with 8 control switches, 6 status LED's per zone
Degrees "F" and "C" status indicators
LCD Display, 2 line x 24 characters

