

# RMB/12 Non-Modular Hot Runner Controller

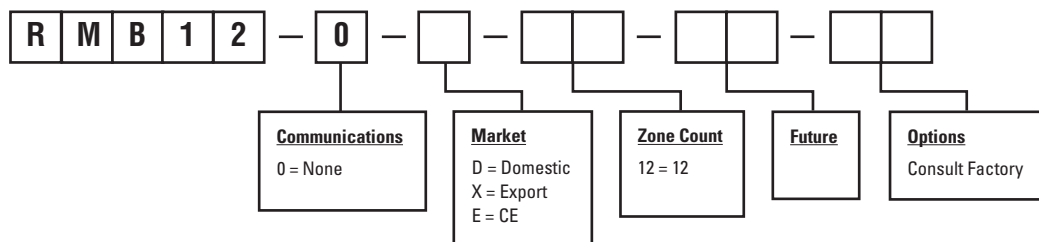


## Hot Runner Temperature Control for 12 Zones

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

