

# RMB/ Series Non-Modular Hot Runner Controllers

# Affordable Yet Powerful Hot Runner Temperature Control for up to 12 Zones

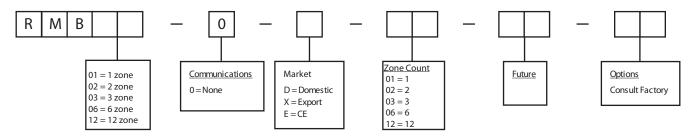
Athena's new RMB/ Series non-modular hot runner control systems offer 1,2,3,6 or12 zones of integrated control in a compact package design at an affordable price. The units are equipped with a full featured user-friendly operator keypad/LCD display and discrete indicators of heat, boost, closed loop, open loop, idle, and alarm for system status.



- Compact package design
- Accepts "J" or "K" thermocouple input, grounded or ungrounded
- ▲ 6 or 12 zones of control with 15 amps per zone 1,2 or 3 zone model has total 15 amps per cabinet
- Built-in loop break, short, open, and reverse thermocouple
- CompuStep bake out feature prevents moisture at start up

- ▲ Adjustable set point limits
- ▲ "Boost" mode for temporary % of power output increase
- ▲ Remote input standby function
- Remote alarm output contacts
- ▲ Fan cooled
- ▲ Easily serviceable with optional spare parts
- ▲ Limited Two Year Warranty–Consult Factory

### **Ordering Information**



#### **Spare Parts**

Triac Driver Board RMB/1-3 Triac Driver Board RMB/6 -12 Fuses 626A066U01 (includes triac driver board, triac and heat sink pad) 626A064U01 (includes triac driver board, triac and heat sink pad) 210B001U01 (15A, 3AB)

## **Technical Specifications**

#### Technical Operating Limits

Absolute Voltage Limits

Input Line Voltage

Ambient Temperature

Relative Humidity

Tolerance

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#### Performance Specifications

Auto Control Mode

CompuCycle® system
(PWM, 200 msec)

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 400 ms

°F/°C

CompuStep® System

**Process Sampling** 

Control Mode
Duration
Output Voltage
Override Temperature

Override Temperature Operation Mode Priority PWM

100 ms

Approximately 5 min. PWM % with zero cross

Field Configurable

200°F (93°C) a: T/C open, T/C reverse,

Shutdown and open heater override CompuStep® b: Manual mode overrides T/C open, T/C reverse

#### Dimensions

	RMB/1-3	RMB/6	RMB/12
Height	3-1/2″	6″	6″
Width	10-1/4"	17-1/4″	22-1/4"
Depth	7″	13-1/2"	13-1/2″
Weight	4.5 lbs.	17 lbs.	20 lbs.

### Input Specifications

Thermocouple	
(T/C Sensor)	Type "J" or "K" grounded or ungrounded
External T/C Resistance	O .
External I/C nesistance	Max 100 ohms for rated accuracy
T/C Isolation	Channel to channel
	common mode
	voltage ± 1.5 Vdc
Cold Junction	_
Compensation	Automatic, better than 0.02°F/°F
	(0.03°C/°C)
Input Impedance	10 megohms
' '	9
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
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### **Output Specifications**

Voltages	240 Vac nominal, single phase 120 Vac available
Power Capability	15 amperes, 3600 watts @ 240 Vac per zone *
Overload Protection	Type (ABC) fuses
Power Line Isolation	Optically and transformer isolated from ac lines. Isolation voltage is greater than 2500 volts
Output Drive	Internal solid state triac

<sup>\* 15</sup> amperes, 3600 watts @ 240 Vac per cabinet RMB/1-3

#### Human Interface (HMI)

8 Control Switches, 6 Status LED's per zone Degrees "F" and "C" Status indicators

LCD Display, 2 Line x 24 Characters (RMB/6) - (RMB/12x2) 2 Line x16 Characters (RMB/1-3)