



RMB/ Series Non-Modular Hot Runner Controllers

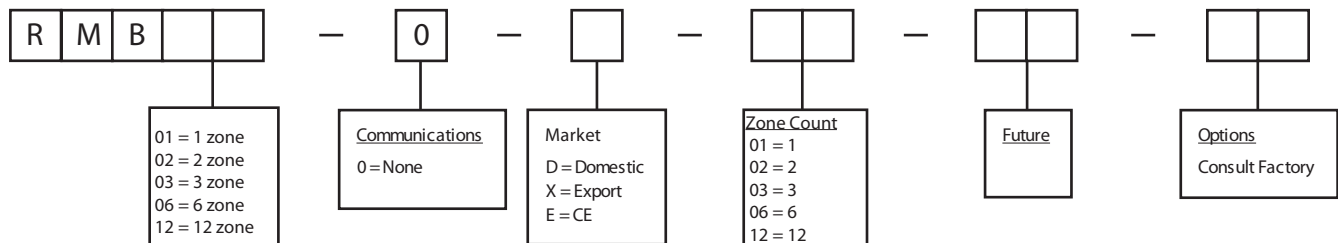
Affordable Yet Powerful
Hot Runner Temperature Control
for up to 12 Zones

Athena's new RMB/ Series non-modular hot runner control systems offer 1,2,3,6 or 12 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 | 626A066U01 (includes triac driver board, triac and heat sink pad) |
| Triac Driver Board RMB/6 -12 | 626A064U01 (includes triac driver board, triac and heat sink pad) |
| Fuses | 210B001U01 (15A, 3AB) |

Technical Specifications

Technical Operating Limits

| | |
|-----------------------------|-------------------------|
| Absolute Voltage Limits | 240 Vac +10/-20% |
| Input Line Voltage | Nominal 120 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) 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 |
| Process Sampling | 100 ms |
| °F/°C | Field Configurable |
| CompuStep® System | |
| Control Mode | PWM |
| Duration | Approximately 5 min. |
| Output Voltage | PWM % with zero cross |
| 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 |

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 | 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 |
| 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 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 |

* 15 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)