

RMB/6 Non-Modular Hot Runner Controller

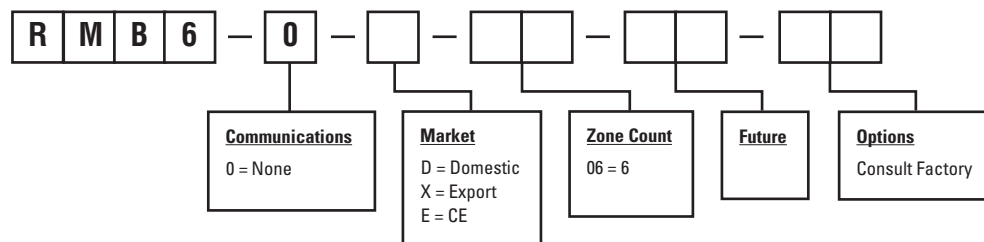


Hot Runner Temperature Control for 6 Zones

Athena's new RMB/6 Non-Modular Hot Runner control system offers 6 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 of Heat, Boost, Closed Loop, Open Loop, Idle, and Alarm.

- ▲ Compact package design
- ▲ 6 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" mode for temporary % of power output increase
- ▲ Remote input standby function
- ▲ Remote alarm output contacts
- ▲ Fan cooled

Ordering Information



RMB/6 Non-Modular Hot Runner Controller

Technical Specifications

Technical Operating Limits

Absolute Voltage Limits	240 Vac +10/-20%
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 °F/°C	100 ms Field Configurable
CompuStep 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	17-1/4"
Depth	13-1/2"
Weight	17 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 100 Vac available
Power Capability	15 amperes, 3600 watts @ 240 Vac per zone
Overload Protection	Triac and load use high speed fuses, Type (ABC)
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)

Operator Keypad	8 Control Switches, 6 Status LED's per zone
	Degrees "F" and "C" Status indicators
	LCD Display, 2 Line x 24 Characters

