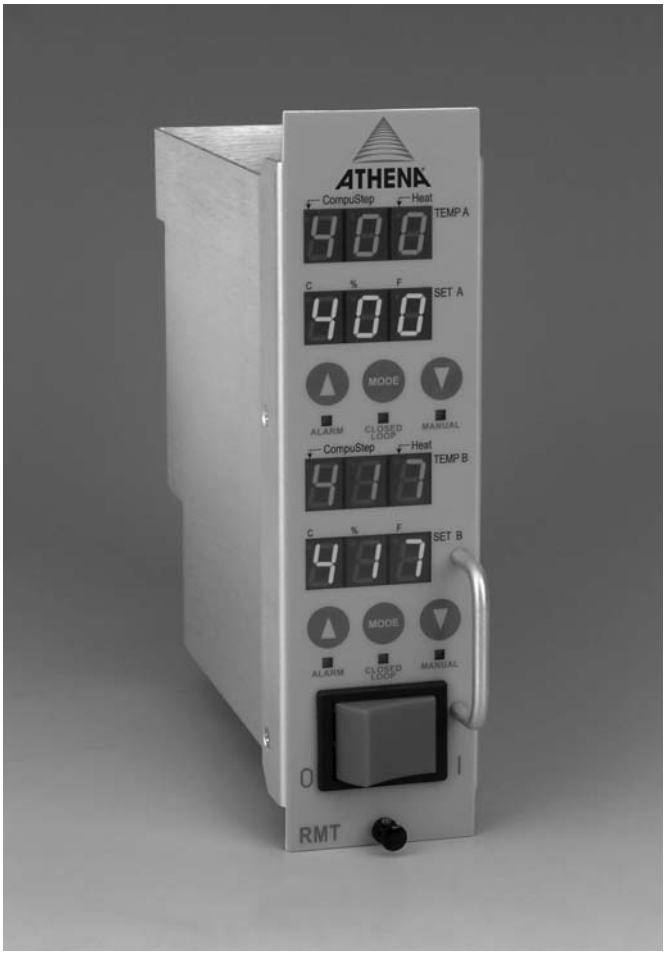
Series RMT



The Athena Series RMT is a microprocessor-based, dual-zone temperature controller specifically designed for runnerless molding applications effectively doubling the zone count per module without doubling the price.

It features two easy-to-use operator keypads, four LED displays, and discrete indicators for heat output, alarm, degree F/C indication, manual and closed loop mode.

- Accepts Type J thermocouple
- Bumpless auto/manual transfer
- CompuStep® bake out feature prevents moisture at startup
- Built-in loop break for open heater, shorted triac, reversed or shorted thermocouple
- Open thermocouple break protection with jumper-selectable shutdown or average power output based on operation
- Preset alarms at 30°F (17°C)
- SafeChange™ "hot swap" feature allows safe removal and replacement of module
- CE compliant
- 15 amps per zone

CE COMPLIANT

Ordering Information

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Market
D = Domestic
X = Export
E = CE

Current Rating
15 = 15 A

Special Options
000 = None
Consult Factory

Technical Specifications

Performance Specifications

Auto Control Mode	CompuCycle® system
Control Accuracy	±0.1°F (±0.1°C) dependent on the total thermal system
Ambient Temperature	100°F to 650°F (37°C to 343°C)
Temperature Stability	±0.5% of full scale over the ambient range of 32°F to 131°F (0°C to 55°C)
Calibration Accuracy	Better than 0.2% of full scale
Power Response Time	Better than 300 ms
Process Sampling	100 ms (nominal)
°F/°C	Jumper-selectable
CompuStep® System Control Mode	Variable stepping voltage, phase angle fired
CompuStep System Duration	Approximately 5 min
CompuStep System Output Voltage	Steps approximately from 25 V_{RMS} with 240 Vac line output, phase-fired
CompuStep System Override Temp	200°F (93°C)
Operational Mode Priority	a. T/C open, T/C reverse, shutdown and open heater override CompuStep system b. Manual mode overrides T/C open, T/C reverse

Input Specifications

Thermocouple (T/C) Sensor	Type “J” grounded or ungrounded
External T/C Resistance	Maximum 100 ohms for rated accuracy
T/C Isolation	Isolated from ground and supply voltages
Cold Junction Compensation	Automatic, better than 0.02°F/°F (0.01°C/°C)
Input Type	Potentiometric
Input Impedance	10 megohms
Input Protection	Diode clamp, RC filter
Input Amplifier Stability	Better than 0.05°F/°F (0.03°C/°C)
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	Triac and load use high speed fuses. Both sides of input power 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, triggered by ac zero crossing pulses

Controls and Indicators

Setpoint Control	Two buttons up or down
Resolution	1°F (1°C)
% Power Control	Two buttons up or down
Mode Control	Push button switch with LED indicator for manual and closed loop mode
Display Top	(Qty-2) 3-digit filtered LED [Green]
Display Bottom	(Qty-2) 3-digit filtered LED [Orange]
Status Indicators	Heat Output Alarm °F/°C % Output CompuStep® Manual Closed Loop
Power On-Off	Rocker Switch, UL, CSA, and VDE approved

Electrical Power Specifications

Input Voltage	95 to 265 Vac
Frequency	50 Hz ± 3 Hz, 60 Hz ± 3 Hz
DC Power Supplies	Internal generated, regulated, and temperature compensated
Module Power Usage	Less than 3 watts, excluding load