



## Athena Hot Runner Controllers

Athena Hot Runner Controllers offer legendary build quality, performance and price.  
Putting more features in and taking cost out.



# Hot runner temperature control for 6 or 12 zones RMB/6 and RMB/12 non-modular hot runner controller

Athena's new RMB/6 and RMB/12 non-modular hot runner control systems offers 6 or 12 zones of microprocessor based control. The system delivers more functionality with a full featured easy to use operator keypad/ lcd display and 6/12 discrete indicators for heat, boost, closed loop, open loop, idle and alarm.



For more information and full technical specification visit:  
[www.invotecsolutions.co.uk/athena](http://www.invotecsolutions.co.uk/athena)

- Compact package design
- 6/12 Zones of control with 15 amps per zone
- Accepts "J" or "K" Thermocouple Input, Grounded or Ungrounded
- CompuStep bake out feature prevent 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



## The New RMT doubles the zone count ...but not the price



The RMT effectively offers you the control of 2 RMA units in one control module with each module sharing a 15A output. 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.

Compact and space saving it can also be customised to mix and match with other control modules from the range



*Athena has achieved its reputation as the leader in the field of "hot runner" temperature controllers through a series of firsts in the plastics industry:*

## Our most popular everyday workhorse

# The RMA hot runner controller

Microprocessor-based self-tuning temperature controllers, from basic units to sophisticated modules featuring Modbus® communications.



With a choice of simple to use but feature packed control modules and single zone controllers we are sure you will find a suitable solution for your application as have 1000's of moulders world-wide.



- 1-, 2-, and 3-zone portable models and modular mainframe systems up to 48 zones
- Wide range of cables, connectors, and accessories, including cables compatible with many G frame type systems
- CompuStep® heater conditioning system

- Current monitoring with limit control (Model dependent)
- CompuCycle® power control system
- Built-in diagnostics
- SafeChange™ "hot swap" feature provides safe disconnect in case of inadvertent removal of module from energized mainframe

- Automatic power hold if thermocouple breaks
- Self-regulating manual power controllers
- Mainframes field-convertible to global power supply voltages



### The new improved IMP

Add more value and simplicity

Athena's newest generation Series IMP modular hot runner controller continues to provide injection moulders with new and highly productive user benefits not found on any other competitive controller.



### The RMB module

Add infinite temperature PID control

The Athena Series RMB is a microprocessor-based, single-zone temperature controller specifically designed for runnerless moulding applications. It features an easy-to-use operator keypad, two LED displays, and three discrete indicators for heat-current, alarm and manual mode. Also including heat boost and PID control.



### The RMC module

Add Communication

The Athena Series RMC brings new and highly productive benefits to injection moulders looking for a modular hot runner controller that's flexible, easy to set up, and simple to operate.

Using the popular Modbus® communications protocol, the Series RMC gives users the ability to set or change all zones, either remotely from a desktop computer, or (with the ALL command) from any other individual RMC module in the mainframe.

# The new Bedros™ hot runner controller with touch screen control for Medium-Sized Multizone Applications



Solid as a rock with the look of a Goddess, Athena's stylish new BEDROS is compact, robust and specifically designed to deliver more functionality than standard controls in medium-sized multizone runnerless control applications.

With BEDROS, you get expanded mould storage capabilities and a fully featured yet intuitive easy-to-use touch screen that greatly simplifies various module system setup, control and storage functions.

- A compact package design 8 to 32 zones of control with 15 amps per zone
- Simple operation with network communications
- A user-friendly colour touch screen with intuitive HMI and built-in buttons for joy stick operation
- An overview screen for summary of all zones including process values, set points and alarms
- Access to configure single or multiple zones with minimal effort
- Naming of zone groups for quick selection and configuration
- Capacity to store/restore multiple setups that can be copied to flash drives for export to other injection moulding machines
- And a host of other standard operating and monitoring features



## TECHNICAL FEATURES

### ■ HMI

- Colour touch screen,
- Summary of all zones including process values and set points,
- Configure single or multiple zones,
- Zone group naming,
- Mould storage capabilities,
- Network communications,

- Built in buttons for joy stick control

### ■ Performance

- Auto control mode: CompuCycle® system (PWM, 200ms),
- Control accuracy: +/- 0.1°C dependent on the total thermal system,
- Temperature stability: +/- 0.5% of full scale over ambient temperature,
- Power response time: Better than 400ms

### ■ Inputs

- Thermocouples: "J" or "K" un-grounded,
- T/C Isolation: Isolated from ground and supply voltages,
- Cold junction compensation: Automatic, better than 0.03°C

### ■ Outputs

- Power capability: 15 Amperes, 3600 watts @ 240 Vac per zone,
- Overload protection: Triac and load use high speed fuses (both sided are fused),
- Output drive: Internal solid state triac



For more information and full technical specification visit:  
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# The industry standard single zone controller



All Athena's single zone controllers use the same microprocessor-based circuitry used in the IMP or RMC modules to perform all required control functions.

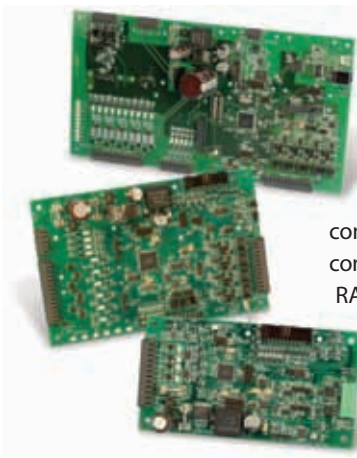
Units have built-in diagnostics and are fully self-tuning – setpoint temperatures are maintained without the need to manually preset or adjust the control temperature.



For more information and full technical specification visit:  
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## Foundation™ Series Customizable Modular Control Products



### For Heat and/or Cool Control Applications

Athena's new Foundation™ Series Modular Control Products offer machine designers virtually limitless heat and/or cooling control possibilities in a package small enough to fit in the palm of your hand.

From simple, cost-effective multi-loop PID control to more complex custom "state machine" control, Foundation's compact basic control board contains a large flash code and RAM memory for added software capabilities and the ability to add plug-in boards for expanded communication, I/O and display options to suit your application.

With Foundation Series, you buy and pay for as little heat and/or cooling control that you presently need with the ability to add more capacity as your applications change.

- Modbus® communications, via RS2232, RS485, Ethernet or USB
- Low voltage, energy efficient 18 VAC/24 VDC control board is designed to UL 508 standards
- Auto-tune provides precise tuning of PID algorithms
- DIN rail mounting option
- Vertical or horizontal display orientations offer mounting flexibility
- Ambient 0-70°C temperature rating enables controller to withstand environment extremes

## Athena Loop, Limit and Power Controllers

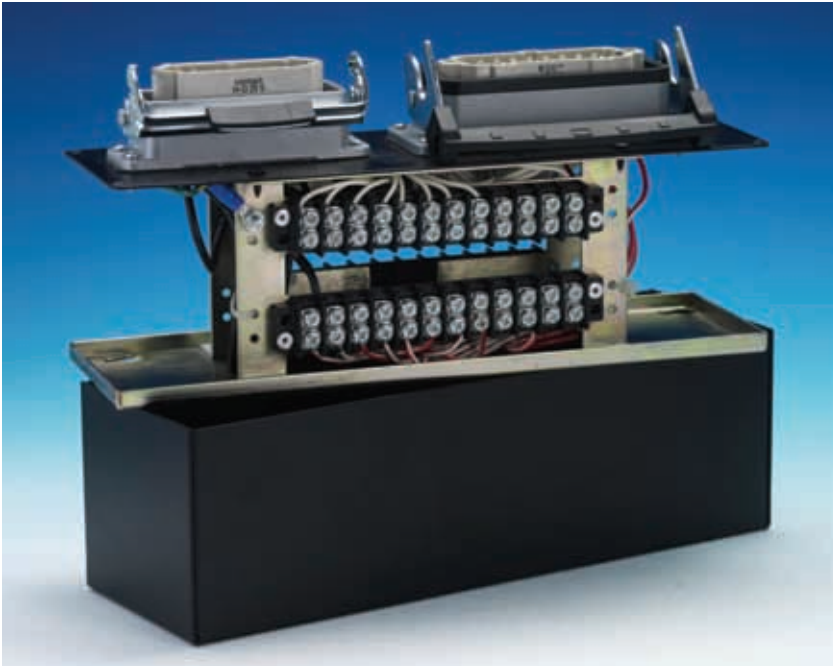
Athena controllers have built a reputation for legendary quality, performance and value.

We offer a fast customizable service for traditional controllers such as Series: 16C, 4C, C, Legacy (AT, XT), Analogue DIN, Limit and stager units.

Alternatively we can create a bespoke application for your business.



# Pre-wired Combination Mould Junction Box for Hot Runner Wiring

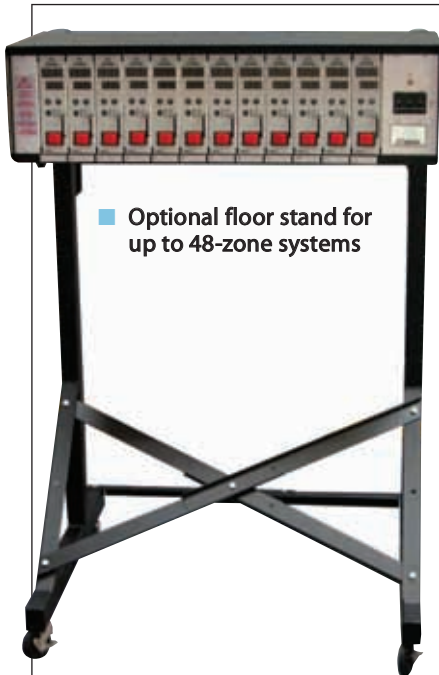


Athena Pre-wired Combination Mould Junction Boxes are available in three different models and offer a fast and simple method for mounting of power and thermocouple connectors to the mould.

Each box contains a terminal strip for easy wiring of the power connector without having to crimp the wires.

#### Each Box:

- Is Constructed of Plated Heavy Gauge Steel
- Has Drilled Holes for Quick Mounting of the Box to the Mould
- Features Pre-Numbered Terminal Strips to Correspond with the Power Connectors
- Comes with All Necessary Mounting Hardware



- Optional floor stand for up to 48-zone systems

## Athena Accessories



- Single and Dual zone combination power and thermocouple cables. Standard sizes 3m and 6m



- Hot runner system power and thermocouple cables. Standard sizes 3m and 6m (standard with systems).



- Tool connector sockets flush or surface mount

For more information contact your local distributor

Affix distributor stamp here.

Discover us at:  
[www.invotecolutions.co.uk](http://www.invotecolutions.co.uk)  
or shop online at:  
[www.mouldteceextra.co.uk](http://www.mouldteceextra.co.uk)

In the event there are no distributor details above, please contact:

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