

## ION SERIES A Modern Modular Controller

- Scrap reduction - flashing, stringing, etc.
- Protect tooling
- Reduce downtime
- Improve productivity
- Lower maintenance costs

### Performance Specifications

- Thermocouple Calibration Accuracy: 0.15 F (0.1 C)
- Control Accuracy (Steady State): +0.1 F (+0.05 C)
- Power Response Time: 8.3 msec. OR 1/2 line cycle at 60 Hz
- Process Sampling: 50msec
- Control Algorithm: Proprietary PID with model based autotuning
- Degrees F or C: Field selectable
- Operating Range: 0-999 F (0-500 C)
- Output Voltage: 0-240 VAC, time based
- Standby Temperature: User Selectable (0-999 F, 0-500 C)

### Input Specifications

- Thermocouple: Type J Standard, Type K Selectable (grounded T/Cs)
- Input Isolation: Up to 1,000 VAC
- Cold Junction Compensation: Internal to enclosure
- External Resistance: 12 MOhms
- Temp. Variation due to T/C Length: None fully compensated

### Electrical Specifications

- Input Voltage: 160-265 VAC Delta or VAC Wye
- Frequency: 47-53 Hz, 57-63 Hz
- Ambient Temperature Range: 32-120 F
- Humidity Range: 10-94% non-condensing
- Output Module Rating: 240 VAC with two models
- Dual Zone Module (2 zones): 20 Amps/zone, 3600 W/zone
- Single Zone Module (1 zone): 30 Amps/zone, 7200 W/zone
- Communication Electrical Standard: RS-485, networkable SPI Standard

### Controller Options

- Mobile Rack
- XFMR with Mobile Rack
- Upgraded Wire Harness (24 zones maximum)
- Remote Display Head Cable

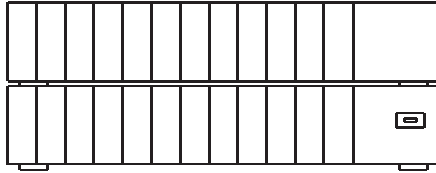
### Agency Approvals

- U.S., Canadian, and International: CE Mark
- I.E.C.: 801-1, 801-2, 801-3, 801-4
- Safety: UL-508, UL-873, and CSA



# Modular Controller ROI Comparison

Traditional vs. Modern



## The *fast2heat* Approach

**Save Money, Reduce Downtime, and Improve Overall Productivity!**

Production/Process Improvement	Traditional	Modern	Notes
<p><i>* Fast Heat Solution</i></p> <p>1. Protect New Tooling &amp; Company Assets</p>	N/A	\$500	per heater seal
<p><i>* Evensoak</i></p> <p>2. Reduce Downtime &amp; Maintain Productivity</p>	N/A	\$720	\$0.50 part x 10 sec shot x 4 hour production run
<p><i>* Slaving of Zones</i></p> <p>3. Lower Maintenance Costs &amp; Budget</p>	N/A	\$800	\$100 repair cost for traditional module - two modules per quarter
<p><i>* Industrial Modules &amp; Components</i></p> <p>4. Lost Work Time - Guessing at Problems, No Training, Tool Room Diagnostics, etc.</p>	Easy to use. No intelligence.	\$600	\$30 per hour, 20 hours per year
<p><i>* Alarm Display Screen</i></p> <p><i>* One Click from Main Screen at all times</i></p> <p>5. Scrap Reduction-Flashing, stringing, etc.</p>	Limited temperature control	\$720	FH system can react quickly as needed. precise temperature control.
<p><i>*PID and system-build intelligence</i></p> <p>6. Energy Savings</p>	zones cycle together over/under shoot	\$100	per year, for 24 zone controller
<p><i>* Waterfall-Zones arranged as a system</i></p>			

**Annual Cost Savings Total: \$3,440**