



# Feature List

Core Description	LEC	TTC
Temperature control	●	●
Temperature control - maximum zones	*24+	640
Sequential valve gate control - integrated option		●
Sequential valve gate control - maximum zones		32
5 year warranty (2 years on touch screen interface)	●	●
Modular design	●	●
Controller warm up time - instant	●	●
If interface fails the controller still controls	●	●
Emergency interface - use any Windows XP* computer	■	●
Automatic/manual control	●	●
Zone "on", "off" and "locked off"	●	●
Set points in tenths	■	●
Adaptive PID <sup>2</sup> control algorithm with Power Priority*	●	●
Algorithm is executed 20 times per second	●	●
Extended tuning ranges (fast/slow)	●	●
Output resolution 0.1%	●	●
Phase angle firing (1000 Steps)	●	●
Wet heater bakeout	●	●
Power compensation in manual mode	●	●
Degree F/C	●	●
Thermocouple J/K	●	●
T/C filtering - none	●	●
T/C resolution 0.03° F (0.014° C) over full scale	●	●
T/C calibration accuracy 0.2° F (0.1° C) over full scale	●	●
Operating temperature 32-113° F (0-45° C)	●	●
Input power 180-265 VAC; 480 VAC optional	●	●
Delta/wye convertible option	●	●
Circuit breaker sized to load	●	●
<b>Actual Values</b>		
Actual temperature	●	●
% Output	●	●
Deviation from set point	■	●
Amps (resolution 0.01 amps)	●	●
Volts	■	●
Watts	■	●
Ohms	■	●
<b>Alarms</b>		
High temperature (adjustable; 10° F default)	●	●
Low temperature (adjustable; 10° F default)	●	●
Thermocouple pinched (adjustable time)	●	●
Thermocouple open (remembered % output)	●	●
Thermocouple reversed	●	●
Open fuse	●	●
Shorted heater	●	●
Open heater	●	●
Uncontrolled output (relay power cut off)	●	●
Critical over temperature alarm (adjustable)	●	●
Heater resistance monitoring (predict failure)	■	●
Heater wattage monitoring (detect leaks) - auto calc.	■	●
Temperature monitoring (J/K) with programmable action	■	●
Alarm history	■	●

■ - Touch screen or laptop required

Limits, units and security local to LEC controller and touch screen

\* Touch screen able to manage 24+ zones with Gammaflux assistance

## Application Note

When using the touch screen interface, it is recommended to only view and make changes to the controller on the touch screen.



Operational Features	LEC	TTC
Menu storage	■	1000
Programmable groups	■	●
Instant grouping	■	●
Sequence Start (up to 4 stages with delay timers)	■	●
Sequenced Power Up - manual activation	■	●
Even Cool (controlled cooling - 15° F [7° C] max. variance)	■	●
Boost (selectable time/amount)	●	●
Trim	■	●
Slaved power up (enable/disable)	●	●
Automatic set point limit	●	●
Manual set point limit	●	●
Security levels	●	●
On power up "on" or "off" ("ask" touch screen only)	●	●
Auto load manual remembered % output	■	●
Operator identification	■	●
Tool graphics with real time data overlay	■	●
Thermocouple "rewire"	●	●
Copy Output	●	●
Standby timer until system "off"	■	●
PDF viewer - import or export files	■	●
USB port	■	●
On-line help	■	●
<b>Software Features</b>		
Maximum screen update rate (in seconds)	6	0.5
Gammavision* (SPC data/graphing)	■	●
Instant data reporting (up to 24 hours)	■	●
Data report storage (up to 1 year) - pdf format	■	●
Mold Doctor* (advanced troubleshooting)	■	●
Field Calibrator (0.1° F accuracy over full scale)	■	●
On screen printing	■	●
Networking (Ethernet IP) - stream .csv file - bidirectional	■	●
Remote troubleshooting/operation	■	●
<b>Cable Connections</b>		
Enclosure connectors HBE 24 standard or HD 25	●	●
Custom control enclosure connectors	●	●
Custom tool end of cable connectors	●	●
<b>Inputs (24 VDC required)</b>		
Standby (also manually activated)	●	●
Control inhibit (voltage to activate)	●	●
Control allow (voltage to activate)	●	●
Material protection	●	●
Sequenced power up	●	●
Remote boost	●	●
Mold ID - 64 combinations - auto menu load	●	●
<b>Outputs</b>		
Resettable alarm output	●	●
Non-resettable alarm output	●	●
"OK to Run" output with status page	●	●
Audible alarm	●	●
<b>Miscellaneous</b>		
Find this module LED	●	●
Daisy chain enclosures	●	●

Windows XP\* is a registered trademark of Microsoft Corporation

24 zone LEC



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