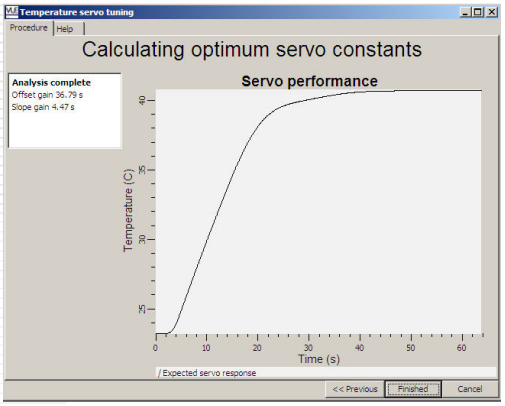
Vue-TEC
Temperature control system



- **The VueMetrix Tuning Wizard will solve your temperature control problems with a few mouse clicks.**
- **Never again spend frustrating hours tuning a P-I-D temperature controller.**
- **Integrated with the VueMetrix TEC controller, the wizard will analyze your system and effortlessly produce the correct solution.**
- **The Vue-TEC Developer's Kit contains everything you need to get started.**

Developer's Kit

More information

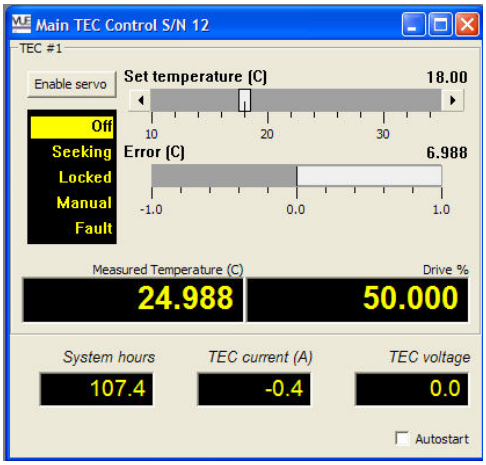
- PDF version of this document
- Manual
- **Passthrough feature**

Contact us *for pricing and delivery.*

The VueMetrix Temperature controller is a bi-directional, high frequency, high efficiency switch mode power converter with filter. It provides smooth DC power for maximum drive efficiency to a Peltier-effect thermoelectric cooler (TEC).

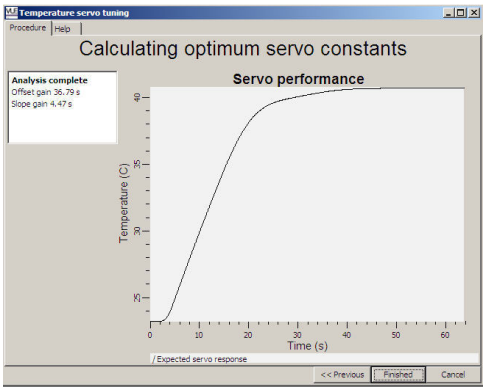
WinVue, VueMetrix's advanced Windows interface program, virtually eliminates the tedious first-time setup process typically required with a temperature controller. No potentiometers to adjust. No guessing at PID constants. The servo tuning wizard empirically characterizes your thermal load and performs a numerical analysis procedure to optimize the temperature control coefficients. In only a few minutes the controller can be properly configured for your load.

The VueMetrix temperature controller has a unique feature known as ***passthrough***. When it receives a serial command beginning with the '!' character, it treats the subsequent characters as a command to be relayed to a second instrument connected to its auxiliary serial port. Replies from the second instrument are relayed back to the host. This concept effectively augments the controller's command set by a second one, allowing two controllers to function as a single unit. If the second unit is a VueMetrix laser diode controller the TEC controller will automatically interface to it, allowing one copy of WinVue to communicate seamlessly with both units.



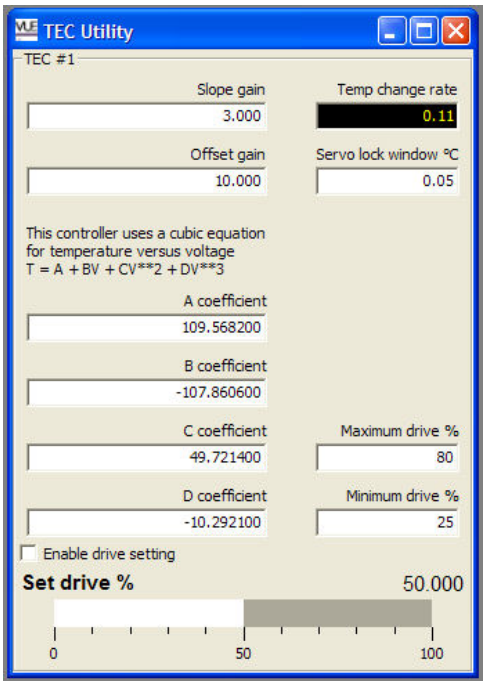
Main TEC Control

- Turn on and off the servo
- Set desired operating temperature
- Reports measured temperature
- Reports the TEC's output voltage and current



Temperature servo tuning wizard

- The wizard will analyze your thermal system and effortlessly produce the correct servo parameters
- Digital chart recorder function for visualizing long term performance



User System Settable Parameters

- Limit maximum permissible output voltage
- Manual drive level control
- Manual servo constant adjustment
- Settable servo lock range to prevent nuisance faults

Specifications

Input power	
Input voltage max	24 VDC
Input Voltage Min	15 volts
Output Voltage	±20 volts when input is 24 volts
Output current max	±10 amp
Efficiency @20 volts	>90%
Other I/O	
Fan power output	12 volts @ 1.0 amp
Thermistor input	NTC 10Kohm@25°C
Typical performance parameters	
Temperature resolution	±0.01 °C typical
Temperature stability	±60 ppm of full scale at 25°C
Computer Interface specification	
USB 2.0	TEC I/O
RS232	TEC I/O
Second RS232	Passthrough to a second controller
Mechanical	
Packaged	2.7"x7.5"x1"
PCB	2.5"x7"x 0.8"

VueMetrix endeavors continually to improve product performance. Specifications are subject to change without notice.