

VersaTenn V Specifications

July 2005, Revision - A

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The VersaTenn V Touch Interface Control System is a microprocessor based two channel proprietary instrument, developed specifically for environmental test chambers. This latest design in the VersaTenn Controller series employs features that will maximize the capabilities of your test chamber. It is precisely designed to take complete command of the chamber's conditioning systems. Logic circuits automatically select heating / cooling (Channel 1), and humidity (Channel 2) modes as required, with total programming of temperature and humidity versus time. Six Event outputs are provided for special applications and optional features. A 100 ohm platinum RTD is used for temperature measurement. A dry capacitance type sensor is used for humidity measurement.

The main features of the VersaTenn V are as follows:

Feature	Description
Channels	
	Channels: 1 or 2 Process Variables Temperature Temperature/Humidity Temperature/Temperature Resolution: 0.1 Degree C or F, 0.1 % Relative Humidity
LCD	
	Type: Color STN Resolution: 320 x 240 Size: 5.7" Diagonal Backlight: CCFL
Operating System	
	Microsoft Windows™ CE Operating System
	Touch Screen based Graphical User Interface (GUI)
Communications	
	RS - 232 Communications
	10/100 Base-T Ethernet Networking
	RS – 485 Communications (optional)
	IEEE 488 Communications (optional)
	Webtouch Remote™ (Pat. Pending) Web Server software for Internet monitoring / controlling (Optional)
Storage	
	8, 16, or 32 MB Flash Disk On Chip Storage
	3-1/2 Floppy Drive (IBM Formatted) Program and test data storage and retrieval
	32 MD SDRAM, USB Hard Disk, Flash Disk
	USB Hard Disk
Processors	
	Main Processor, National Semiconductor x86 Pentium Class
	I/O Processor, Rabbit Semiconductor R2000
	Touch Screen Controller Processor, Microchip PIC16F876
Peripherals	
	Universal Serial Bus (USB), 2 Host Ports
	VGA Monitor

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	PS/2 Keyboard and PS/2 Mouse
Programming	
	Windows friendly program files names.
	Program creation wizard.
	Step Types: Set point, Jump Loop, Auto start, Hold, Stop
	Number and size of programs only limited by onboard storage
Software Features	
	Built-in context sensitive Help System
	International Language Support
	Real-time color graph displays
	Built-in TCP/IP networking
	Real Time Clock with Battery Backup
	Automatic Resume after power failure
	Software configurable chamber type
Analog Inputs	
	Process Voltage Inputs (4): Range: 0-5 VDC; Accuracy: +/- 0.5 mV Resolution: 16 bits
	RTD Inputs (2): Range: 0 to 200 Ohms, Accuracy +/- 0.05 Ohms 100 Ohm Pt. RTD, JIS or DIN
	Machine diagnostics interface (8) Range: 0-5 VDC; Accuracy: +/- 10 mV Resolution: 10 bits
Analog Outputs	
	Voltage Outputs (2): Range: 0-5 VDC; Accuracy: +/- 0.5 mV Resolution: 12 Bits
	Analog Output Functions: Setpoint CH1, Ch2 or CH3 Actual CH1, Ch2 or CH3 Head PID CH1, Ch2 or CH3 Cool PID CH1, Ch2 or CH3
Digital Outputs	
	Total Digital Outputs:32
	Triac Outputs: 30 Output Rating: 5 A, 250 VAC
	Relay Outputs 2 Contact Rating: 3 A, 250 VAC
	Event Outputs: 6 User controllable Triac Outputs
Digital Inputs	
	Total Digital Inputs: 16
	Ground: TRUE
	Open Circuit: FALSE
	Voltage Range: - 0.5 to 5.5 Vdc

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Data Logging	
	Interval, 1 Second to 3600 Seconds
	Process Variables, Setpoints, PID variables
	UUT (Unit Under Test) T-Type Thermocouple temperature data logging and display with 16 Inputs expandable to 64 Inputs.
UUT Temp Module	
	T-Type Thermocouples: 16
	Total Supported Modules/Sensors: 4/64
	Temperature Range:-200 C to 400 C
	Power: 9 to 28 Vdc, 3 Watts
Alarms	
	Low Program Memory
	Low Space Storage Card
	Temp Guard IV
	Open Sensor Ch 1 - RTD 1
	Open Sensor RTD 2
	Voltage Sensor Ch 2 – Humidity (Analog Input 1)
	Voltage Sensor (Analog Input 2 thru 4)
	Hi Temperature/ Low Temperature
	Hi Humidity/ Low Humidity
	Internal Communications failure
Other	
	Power Requirements: 85 to 264 VAC, 25 Watts
	Operating Temperature: 10 to 30 C
	Operating Humidity: 0 to 90% RH, Non-condensing
	Size: 22" X 3.25" X 13"
	Weight: Main Unit: 8.5 lbs, Olympic I/O Controller: 0.4 lbs. Shipping Weight: 15 lbs. total including reusable shipping container

About Tidal Engineering

Headquartered in Randolph, NJ, Tidal Engineering Corporation has been designing and building award-winning embedded hardware and software for test and measurement and data acquisition applications since 1992. The company further provides product development services together with engineering support, and is recognized for technical expertise in such areas as Embedded IEEE 488, and turnkey SCADA (Supervisory Control and Data Acquisition) systems. Tidal's products are available exclusively through ADI American Distributors Inc., an ISO-9002 certified distributor of electronic and electromechanical components and assemblies.

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