

Synergy Controller

Vs.

VersaTenn III



Introduction

Synergy Controller is Tidal Engineering's ® Environmental Chamber Controller designed as a drop-in replacement for a Tenney VersaTenn III controller. The Synergy Controller was designed specifically to field retrofit legacy VersaTenn III equipped environmental test chambers in less than one hour.

This application note compares the Synergy Controller with the VersaTenn III.

The Synergy Controller enhances legacy environmental test chambers with state-of-the-art usability, connectivity and operating efficiency. Some of the features of the Synergy Controller are:

- Color touch screen.
- Ethernet, RS-232 and GPIB communications are standard.
- Built in Data logger and Data Acquisition system for up to 64 T-type thermocouples.
- Built in Web Server for remote control.
- Compatible with Companion PC software for logging and program creation.
- Built-in Floppy drive for data logging and program transfer.
- Built-in USB port compatible with USB Disk drives for data logging and program transfer.
- LabVIEW driver support for TCP/IP, GPIB and RS-232.

For detailed installation instructions please visit our website and download Synergy Controller Application Note 1:


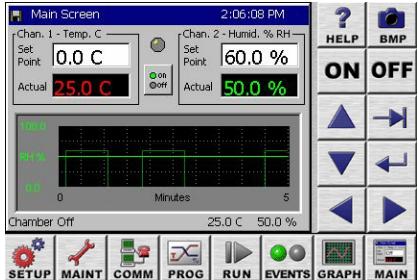

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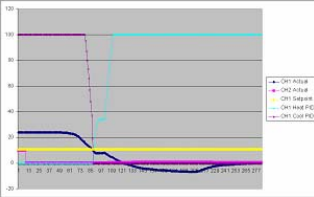
Feature	VersaTenn III	Synergy Controller	Synergy Advantage
			
User Interface			Synergy Advantage
Display	12 Character Alphanumeric LED	Color Touch Screen, Graphical User Interface	Synergy is Very easy to use. www.tidaleng.com/synergy.htm
Help System	Not Available	Context Sensitive Help System	Help with any feature
Real-time color graph display	Not Available	Yes PV and SP	Useful for troubleshooting
Maintenance Features			
Firmware Upgrades	Not Available	Floppy Disk	Upgrades are Free for VTV
Screen Capture	Not Available	Built-in Screen Capture feature	Capture settings, messages, etc for documentation
Diagnostics Inputs	Not Available	Hi and Lo stage Compressors Hi/Lo side Temp. and PSIG	Sensors are Optional
Control Features			
Process Inputs	2 Process Inputs: Chan. 1 - 100 Ohm Pt. RTD, Chan. 2 - Dry Cap. RH Sensor	2 Process Inputs: Chan. 1 - 100 Ohm Pt. RTD, Chan. 2 - Dry Cap. RH Sensor (4) 16-Bit 0-5VDC inputs	Four Hi Resolution analog inputs for logging UUT and process data.
Turbo Humidity	Not Available	Yes	Faster and more accurate humidity control speeds up product testing
Cascade Control	Not Available	Yes	Control product temperature for the fastest testing possible.

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Feature	VersaTenn III	Synergy Controller	
Data Acquisition			
Data Acquisition	Not Available	Up to 64 T-Type Thermocouples 	16 sensors per module Up to 4 modules
Data Logging	Not Available	More than 16 MB storage PV Temperature, Humidity, Altitude SP Temperature, Humidity, Altitude PID Heat, Cool for all three ch's. 	CSV data log file can be exported to Floppy disk or USB Hard Disk
Retransmit Channels/ Functions	2 Channels PV Temperature, Humidity	2 Channels PV Temp., Humidity, Altitude SP Temp., Humidity, Altitude PID Heat, Cool	SP=Setpoint PV=Process Variable PID=Proportional Integral Derivative (Control Variables)
Profiles			
Program Steps	10 Profiles, 99 Steps Max	Unlimited	Synergy Controller programs can be edited graphically on a PC using our free LinkTenn 32 application software and loaded on the controller using a Floppy or USB Flash Disk. The full LinkTenn32 software offers program download, control and monitoring.

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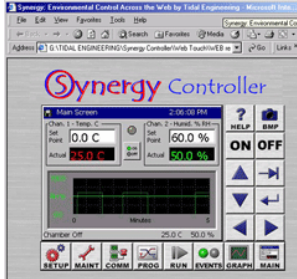

Feature	VersaTenn III	Synergy Controller	
Removable Storage			
USB Flash Disk	Not Available	Yes 	USB Flash disks can be used to copy data to and from your desktop computer. For program read/write and data logging
Floppy Disk	Not Available	Yes 	Floppy disks can be used to copy data to and from your desktop computer. For program read/write and data logging.
Inputs/Outputs			
Outputs	10	32 Max	
Event Outputs	Six	Six 	Triac, Relay and SSR options available
Digital Inputs	1	16 Max	Digital Inputs can control profiles
Communications			
Ethernet	Optional	Yes	Ethernet 10/100 BaseT
RS-232	Yes	Yes	
GPIB	Optional	Yes	
LabVIEW Driver	Not Available	Yes	Control via LabVIEW via; RS-232, GPIB and TCP/IP

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Feature	VersaTenn III	Synergy Controller	
Web Based Remote Control	Not Available	Yes	 <p>Webtouch Remote™ Web Server. This built-in webserver provides unique remote control capabilities. See and control the touch screen over the Internet for training, troubleshooting and efficiency.</p>
Bar Code Interface	Not Available	Yes	 <p>Scan a bar code or OCR label to load and run the appropriate profile, set alarms, load PID values, create entry in the log file.</p>

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 is recognized for technical expertise in such areas as Environmental Test Chamber Controls and Data Acquisition, 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.

Tidal Engineering® Corporation
 2 Emery Avenue
 Randolph, NJ 07869
 Tel: 973/328-1173
 Fax: 973/328-2302
 www.TidalEng.com