



**Alltest Instruments, Inc.**

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**alltestchambers.net**  
sales@alltest.net

Alltest Instruments is your one stop shop for environmental test solutions. We specialize in premium refurbished chamber sales, rentals, service, calibration, and controller upgrades.

## Why buy from Alltest?

### QUALITY YOU CAN TRUST

All chambers include a 90 day warranty and 5 day right of return. Each unit is tested to OEM specification and comes with our personal satisfaction guarantee.

### TOP OF THE LINE EQUIPMENT

Alltest is the largest supplier of Thermotron environmental testing chambers.

### EXPERT SERVICE WITH A PERSONAL TOUCH

Alltest Instruments technicians have over 30 years of experience with environmental design and chamber repair.

### CUSTOM DESIGN SOLUTIONS

Our team is available to come on-site to help you design and install the right system for your specific needs.

## Get a quote today!

Call (732) 919-3339

Email [sales@alltest.net](mailto:sales@alltest.net)

[Visit alltestchambers.net/contact](http://alltestchambers.net/contact)

**Return Policy:** All items on this site carry a 5 day right of refusal, 90 day warranty and a 30 day resellers guarantee.

**Product Availability:** If an item you ordered has to be put on backorder, we will contact you immediately, and give you an estimated delivery date. When it becomes available, we will contact you before shipping to confirm that you still need the product. In the event we are unable to fulfill the order we will offer you a substitute or cancel the order. We reserve the right to cancel any order placed at any time. Price and delivery are subject to availability.

**Shipping Cost:** Buyer pays actual shipping cost of UPS or FedEx. No handling charges.

**Sales Tax:** Only New Jersey residents and companies pay sales tax. Unless you have a tax resale number.

**Payment Terms For US Customers:** Visa, MasterCard, AMEX, Wire Transfer, Prepay, PayPal, or COD. Repeat customers can request terms.

# SYNERGY QUATTRO

Designed Specifically For Environmental Test Chambers

A FOUR CHANNEL PROCESS CONTROLLER AND DATA LOGGER



The Synergy Quattro is a 4th generation Synergy Controller and the most cost effective and versatile full-sized controller in the line. The state-of-the-art system is engineered to offer all the features needed to maximize the capabilities of your environmental chambers in a standard package. Designed to take complete command of the chambers' conditioning systems, its algorithms automatically select heating/cooling modes as required, and totally control programming of temperature, vibration, altitude and humidity versus time

The Synergy Quattro features a full function data logger supporting numerous process inputs and control variables. Process inputs include RTD, thermocouple, voltage and current. It moreover allows users to program up to nine custom event outputs for special applications and optional features. Boasting the Microsoft Windows™ CE operating system, this feature-rich instrument's sophisticated communications capabilities also include built-in remote control/monitoring. The Synergy Quattro Controller may be specified on most chambers from industry leading chamber manufacturers and can be easily retrofit into legacy equipment.

The Synergy Quattro continues to support the Synergy Controller Application software utilized by the Synergy Micro 2 and ¼ DIN Synergy Nano controllers so investments in training and software development are maximized. In this way, the Synergy Quattro demonstrates Tidal Engineering Corporation's continued commitment to innovations in features, sustainability, and value across all environmental test chamber and process ovens.



"WebTouch Remote (tm) Web Based Remote Control"

TIDAL ENGINEERING CORPORATION  
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# SYNERGY QUATTRO

## Channels

- Channels: 1 to 4 Process Variables Temperature, Humidity, Altitude, Vibration, and Light

## LCD

- Type: Color 320 X 240
- Backlight: LED
- Touch screen

## Operating System

- Microsoft Windows™ CE

## Communications

- 10/100 BaseT Ethernet
  - Telnet, FTP, and Web Touch Server
  - E-Mail (SMTP), Text Messaging (SMS)
  - Printing/Plotting HPCL, PDF
- RS - 232 Communications
- IEEE 488 (Optional - Order TE1588)

## Storage

- 1 GB Onboard SD Flash
- Removable USB Flash Disk

## Universal Serial Bus (USB)

- USB Flash Memory for program & log files
- USB Mouse, Keyboard, Barcode scanner

## Programming

- Windows-friendly program file names
- Step Types:
  - Set Point, Jump Loop, Auto Start, Hold, Pause, and Stop
- Number of programs:
  - Only limited by onboard storage
- Software Features
  - Real Time clock with battery backup
  - Automatic resume after power failure
  - Software configurable chamber type

## Analog Inputs

### Universal Input (2)

- Wet Bulb-Dry Bulb Humidity Sensing
- Temp Comp. for Electronic Sensing
- RTD
  - Temp. Range: -200° C to 630° C
  - Accuracy: +/- 0.05 Ohms
  - 100 or 500 Ohm Pt., JIS or DIN
- T/C
  - T/C Accuracy: +/- 1° C
  - Types E, B, J, K, R, S, and T
- Analog Process Inputs (2)
  - Resolution: 16 Bits 4-20 mA

## Voltage Inputs (2)

- Resolution: 16 Bits 0-5 VDC
- Analog Aux Inputs (8) (optional)
  - Resolution: 12 Bits, 0-5 VDC or 4-20 mA

## Analog Outputs (2)

- Range:
  - 0-5 VDC Standard
  - 4-20 mA Optional
- Accuracy: +/- 0.5 mV
- Resolution: 12 bits
- Functions: Channel PV, SP, PID, Sensor

## Main Outputs (24)

- Open Collector: 24 Vdc, 50 mA Max.
- Connectors:
  - (1) 34-Position Header, 0.1" x 0.1"
  - (2) 20-Position Header, 0.1" x 0.1"

## Event Outputs (6) Optional

- TE1151-6: Triac Outputs
- TE1708-6: Relay Outputs

## Digital Inputs (8)

- Ground: TRUE, Open Circuit: FALSE
- Voltage Range: - 0.5 to +5.5 VDC
- Digital Aux Inputs (8) (Optional) (Order TE2251-4 for this option)

## Data Logging

- Capacity: 100 Mbytes
- Interval: 1 Second to 60 Minutes
- Data:
  - Process Variables
  - Process Setpoints
  - PID Variables
  - UUT T-Type Thermocouples

## Alarm Types

- Low Program Memory
- Low Storage Card Memory
- Temp-Guard External Monitor
- Open Sensor
- High/Low Process Limit
- High/Low Deviation Limit
- User Programmable Alarms
- Internal communications failure

## Power Requirements

- Dual Supply Capability
  - 100 to 240 VAC, 47 to 63 Hz
  - 24 VDC
- 15 Watts

## Operating Conditions

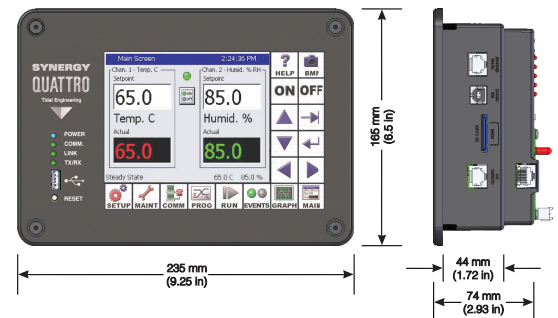
- Temperature:
  - 10° C to 30° C
- Humidity:
  - 0 to 90% RH, Non-condensing

## Warranty

- 3 Year Limited Warranty

## Size and Weight

- 9.25" W x 6.50" H x 2.93" D
- 1.5 lbs.



## Synergy Quattro Controller and Accessories Part Numbers:

- TE1961 Synergy Quattro Controller
- TE1299-16 Synergy UUT Thermocouple Monitor
- TE1151-12 Triac Output Board, 12-Channel
- TE1151-6 Triac Output Board, 6-Channel
- TE1708-6 Electro-Mechanical Relay Board, 6-Channel
- TE2251-1 Four 8-Channel Thermotron Outputs
- TE2251-2 Opto-22 Output Rack
- TE2251-4 Analog/Digital Input Expander
- TE2251-5 SSR Outputs, 5-Channel
- TE1865 LabVIEW Driver
- TE1588 Synergy488 GPIB option
- TE1566-1 Synergy Lab Manager Software
- TE1567 Synergy WebTouch Remote Feature
- TE2013 Synergy Pressure Feature
- TE2042 Synergy Cascade Control Feature
- TE2175 Synergy Printer Feature
- TE2176 Synergy Server Feature

## Highlights

- 4-Channel Controller
- 100 MB Data Logger
- Ethernet Standard
- WebTouch Remote™
- E-Mail Data Delivery
- Text messaging

## Delivering Test Results

The Synergy Controller platform improves lab efficiency by reducing costs for software development and training and providing innovative data logging and communications features.

## ABOUT TIDAL ENGINEERING

Headquartered in Randolph, NJ, Tidal Engineering Corporation has been designing and building award-winning embedded hardware and software for environmental test and measurement and data acquisition applications since 1992.

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