



PRODUCT DATA SHEET

Synergy Nano



MULTI-CHANNEL PROCESS CONTROLLER AND DATA LOGGER FOR PRECISION TEMPERATURE TEST

DESCRIPTION

Temperature controller features a Color LCD touch screen, easy to use with on-screen graphing capability, logging, multi-sensor, multi-conditional outputs, very descriptive menus, GPIB optional and free drivers. Includes remote programmability options plus easy to build and reproduce local test profiles. Built with a universal 120-230 AC Input circuit.

LCD

- LCD Type: Color Display
- Backlight: LED
- Touch Screen Type: Resistive

USB Device

- USB Flash Memory for program & log files
- USB Mouse

Universal Sensor Inputs

- RTD's
- Thermocouples
- Signal Conditioner, 5V, 10V, 4-20mA

Auxiliary Outputs (6)

- 0 to 24 VDC max

Event Outputs (6) Optional

- Hot and Cold indication lights triggered by temperature
- Purge Gas on/off state triggered by temperature

Data Logging

- Sample Interval: 1 Second to 60 Minutes
- Long duration logging runs
- Data: Process Variables, Process Setpoints,
- PID Variables & Constants, UUT T-Type T/C

Alarm Types

- Open Sensor
- High/Low Process Limit
- High/Low Deviation Limit
- User Programmable Alarms, email, text message alert

Communications

- 10/100 BaseT Ethernet Control Monitoring & networking plotting
- RS - 232 Communications
- IEEE 488 (Optional)

Programming

- Windows-friendly program file names
- Step Types: Set Point, Jump Loop, Auto Start, Hold, Pause, and Stop
- Software Features: Real Time clock with battery backup, automatic resume after power failure, many preloaded configuration files

Synergy Nano Controller Options:

- Synergy Lab Manager Software
- Synergy UUT Thermocouple Monitor
- Synergy LabVIEW Driver
- Synergy 488 GPIB option
- Synergy Web Touch Remote (tm)

Available Controller Configurations

- Standard Bench Top with Tilt Bar
- 3U 19 Inch Rack Mount (example shown, next page)
- Chassis Mounted
- Independent Safety Shutdown (next page)
- Dual Zone Capability (next page)
- Custom Controller Umbilical Length (next page)
- Umbilical Secondary In-line Sensor
- High Current for Faster Heating
- IEEE 488 GPIB Board
- Two Sensor Temperature Control Algorithm
- 16-Channel Temperature Monitor, up to 64 Channels
- Extended Temperature Ranges
- Cryogenic or Mechanical Cooling
- Purge Gas On/Off State Triggered By Temperature
- Hot and Cold Indication Lights Triggered By Temperature (next page)
- Retrofit Controllers for Aging Systems
- Hybrid Benchtop Chamber Dual Zone
- Chambers, Thermal Platforms and more

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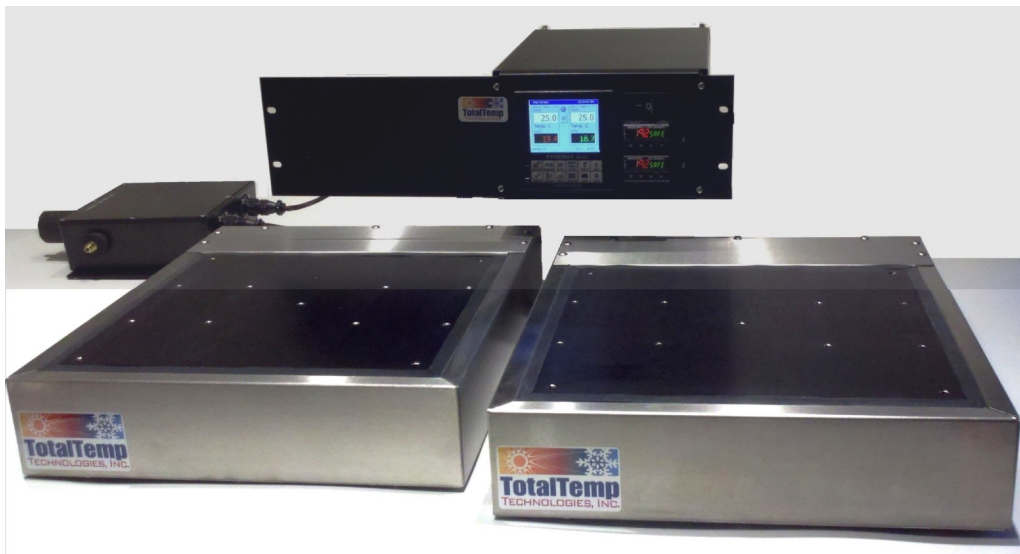
PRODUCT OPTIONS



Nano Controller in standard housing with
Custom Length Umbilical



Controller can indicate Hot/Cold safety status
(SD288 Thermal Platform shown has a 12" x 24" surface)



3U 19 Inch Rack Mount with **Dual Zone** capability and two **Independent Safety Shutdown** Limit Controllers. Due to the limitation of cryogenic valves needing to operate in only a few orientations below left is a remote valve box that allows the Thermal Platforms to be oriented in any direction. Shown with two 12" x 12" SD144 cryogenically cooled Thermal Platforms.



TotalTemp also offers the [EZ-ZONE PM Controller](#) a cost-effective temperature controller for manual single setpoint



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