PRODUCT DATA SHEET

Synergy Nano Temperature Controller

Benchtop Configuration, shown with feet and tilt stand is 5-1/2" x 10" x 10"

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

The Synergy Nano equips temperature chambers and thermal platforms with capable and reliable controlling functionality. The flexible Nano supports the ability to optimize equipment and processes. They are feature rich while still being easy to use. Features include logging, configurable inputs and outputs, alarms, displays, remote programmability options plus easy to build and reproduce local test profiles. Module features:

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

Communications
• 10/100 BaseT Ethernet
• 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

Controller is universal 120-230 Volts AC. Platforms and Chambers are typically not universal voltage.

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

Available Controller Configurations
• Advanced 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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ENVIRONMENTAL EQUIPMENT & TEST LAB

PRODUCT DATA SHEET

Synergy Nano Temperture Controller
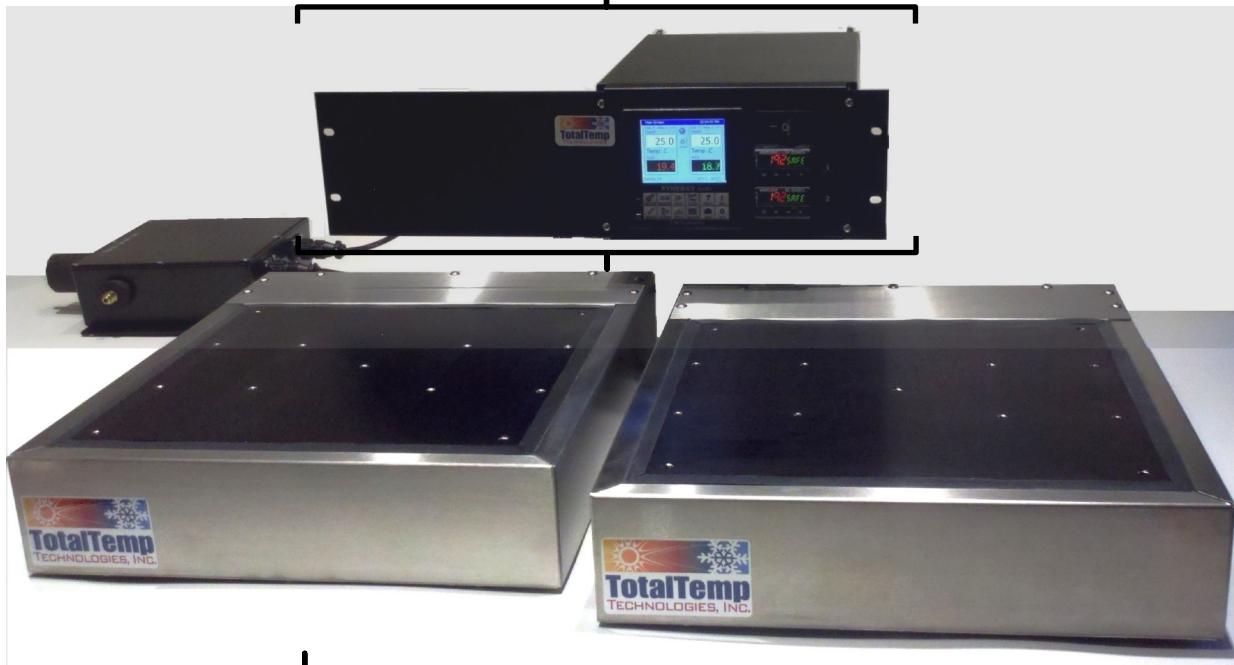
Nano Controller in standard housing with Custom Length Umbilical
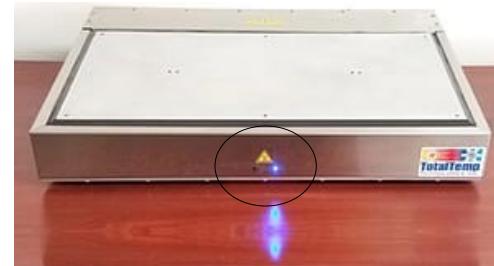
Controller can indicate Hot/Cold safety status at platform panel

(SD288 Thermal Platform shown has a 12" x 24" surface)

These Thermal Platforms can also have the EZ-ZONE PM Controller
A cost-effective temperature controller for manual single setpoint

Visit Our Web Site For Thermal Platform Information 323-770-0634   sales@LRE.com   LRE.com