**Get smart results with the
TPS Smart 1.2 Process Controller**
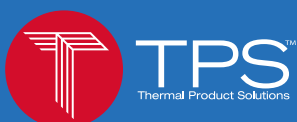
Smart 1.2 Controller Specifications

The Smart 1.2™ Control System applies Tenney's proven environmental control technology with the ultimate in simplicity and versatility for total programming capabilities.

Main features of the Windows CE 7.0 Pro based PLC Smart 1.2 include a WSVGA 1024 X 600 high resolution graphical 7-inch touch screen, Smart 1.2 graphical user interface, 800 MHz Cortex A9 central processing unit, 8 GB (SD Card) flash storage, capable of storing up to 100 profiles with 100 steps each.

Test Data retrieval and profile data transfer/sharing is accomplished through a local USB flash drive. Individual PID control loops allow for precise process control. A 100-ohm platinum RTD is used for temperature measurement with a dry capacitance type sensor for humidity measurement.

The Smart 1.2™ Controller is precisely designed to take complete command of the chamber's conditioning systems. PLC logic automatically selects conditioning modes as required, with total programming of temperature / pressure versus time or temperature / humidity versus time.
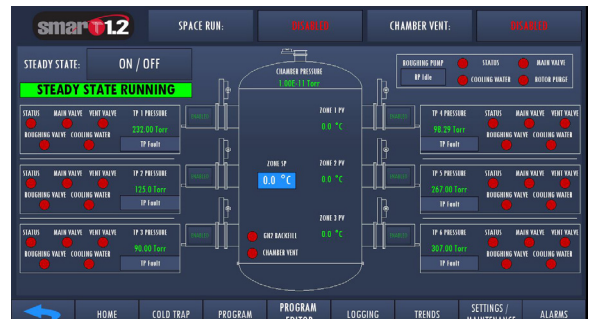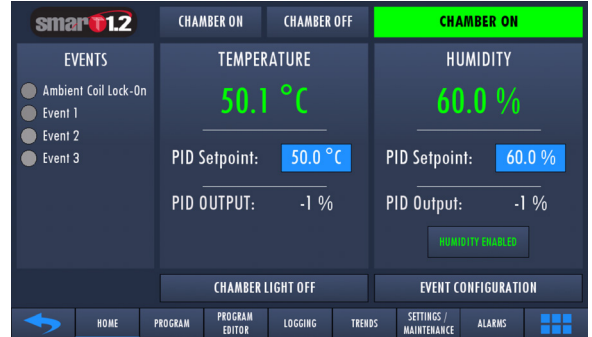
Programs are in the form of CSV files. These can be created on the controller via a Program Editor Wizard, moved from another unit or library with a USB stick, or by a network connection. Data communication is provided in Ethernet / IP or Modbus / TCP.
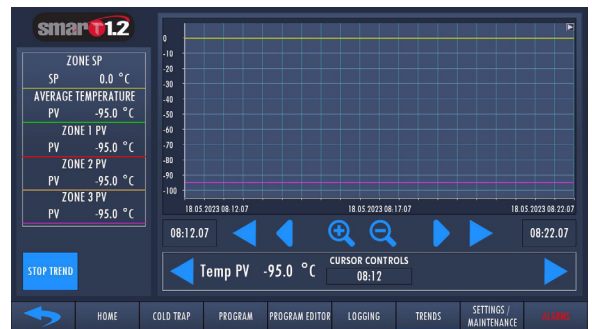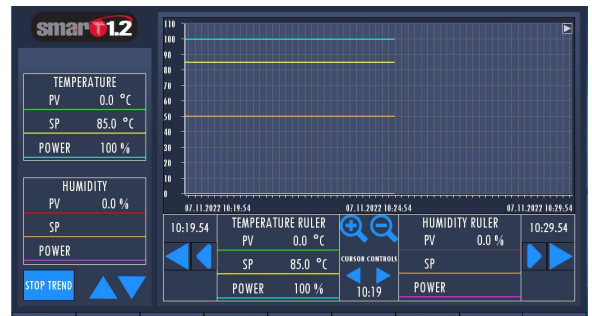
Features and Controls

Smart 1.2 Process Controller Features

- Real-time and historical color graph displays for temperature and humidity or pressure
- System can run in Single set point or Programmed modes
- Flexible User Management options
- Built-in TCP/IP networking via Ethernet 10/100 communication port
- Ethernet and RS485 communications are standard. RS232, & IEEE GPIB are all available as options
- Built-in peripheral support expansion using the USB, providing an effective and flexible interface, for use with USB Keyboards, mouse and barcode scanners. Analog signal re-transmit out to peripheral devices such as optional chart recorders. Alarm, Program, and Datalog files can be easily transferred to and from controller via USB
- Remote access via Smartphone, IPad, etc. with internet connection and VNC phone application
- 16 million display colors with a contrast ratio of 850:1
- 512MB DRAM and 1GB of Flash Memory
- Programmable Control – Selectable: Profiles are created as standalone named SMART1 (CSV) files. A list box enables the user to edit or load a CSV profile
- Profiles – Up to 100 viewable profiles / programs are available on HMI. If more than 100 profiles are on the controller, only the first 100 are shown
- Profile Steps – Up to 100 Steps are possible in each profile
- Temperature / Humidity versus time:
  - 2 Process Inputs: Chan. 1 - 100 Ohm Platinum RTD, Chan. 2 - Dry Capacitance Humidity Sensor
  - Humidity Control Outputs - PID / On-Off
- Temperature / Pressure versus time:
  - 2 Process Inputs: Chan. 1 - 100 Ohm Platinum RTD, Chan. 3 - Pressure
  - Pressure Control Outputs - PID / On-Off
- 3 PID Loops
- Ramp / Soak Programming For All PID Loops
- Temperature Control Outputs - PID / On-Off
- 3 Event Outputs
- Alarm Output for each channel

Total Process Monitoring and Control

Intuitive User Interface