

Matrix Series Controller



Super Systems Inc.'s **Matrix Series Controller** provides a flexible platform for meeting a large variety of control applications. The expandable I/O for analog and digital cards allows for right-sizing an application. The instrument has all the built-in features for sophisticated thermal processing applications, includes a customizable HMI allowing the right interface to be created for the application, and includes built-in data logging.

The exceptional scalability and rich application features makes this controller ideal for multi-zone, multi-control applications.

Multiple Screen Sizes

- Custom Designed Interface – compact HMI

Expandable I/O

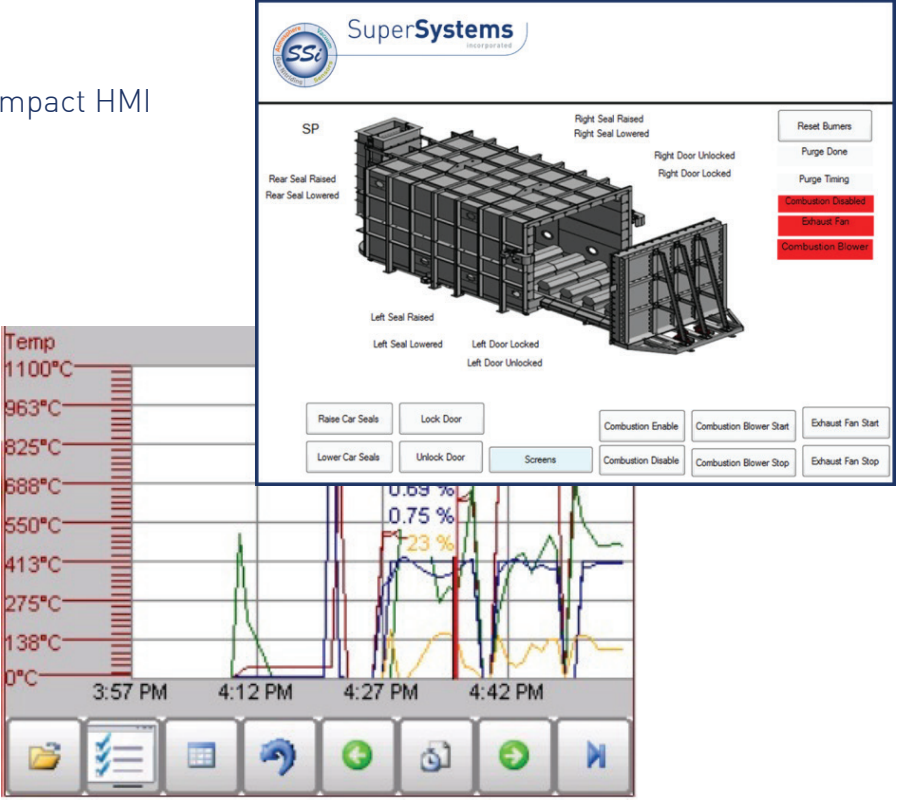
- Analog Inputs (4 per card)
- Analog Outputs (4 per card)
- Digital Inputs (4 per card)
- Digital Outputs (8 per card)

Robust Communication Supported

- Ethernet
- RS 485 Master/Slave
- DF1 – Allen Bradley
- Vacuum Gauge Comms
 - Televac
 - Infocon
 - Leybold

Multiple Recipe Programmers

- Segment or Step

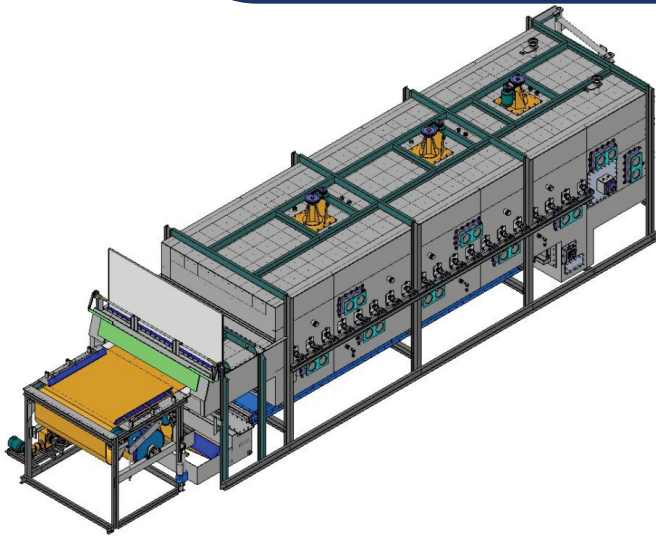


The screenshot shows the SuperSystems HMI interface. At the top is the SuperSystems logo. Below it is a 3D model of a furnace with various status indicators: 'Rear Seal Raised/Lowered', 'Left Seal Raised/Lowered', 'Right Seal Raised/Lowered', and 'Right Door Unlocked/Locked'. A control panel includes buttons for 'Raise Car Seals', 'Lock Door', 'Lower Car Seals', 'Unlock Door', 'Screens', 'Combustion Enable/Disable', 'Combustion Blower Start/Stop', and 'Exhaust Fan Start/Stop'. A 'Reset Burners' button is also present. On the right, three red status bars indicate 'Combustion Disabled', 'Exhaust Fan', and 'Combustion Blower'. At the bottom, a temperature graph shows a scale from 0°C to 1100°C and a time axis from 3:57 PM to 4:42 PM. The graph displays multiple data series with values like 0.69%, 0.75%, and 23%.



Applications

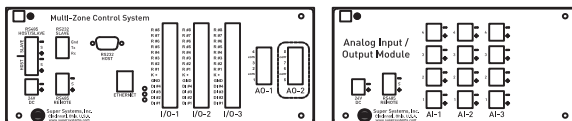
Continuous Furnaces
 Generator Control
 - Multi-Retort (up to 6)
 Multi-Zone Batch Applications



Features

Custom Overview Screen Using cHMI
 Math Block for extending functionality
 Recipe - Segment Profile
 - Zone, Event, Time
 Data logging to screen
 - Process Data
 - Batch

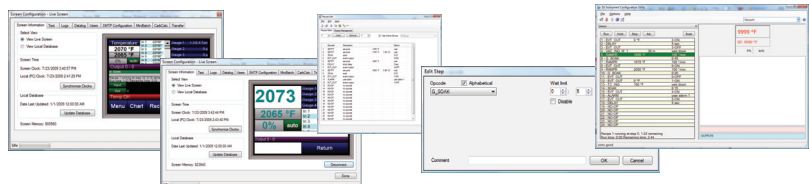
| Feature | Max Expandable I/O |
|-----------------------------------|--------------------|
| Max Analog Inputs on Backplane: | 24 |
| Max Aux Analog Inputs: | 40 |
| Max Analog Outputs on Backplane: | 16 |
| Max Digital Outputs on Backplane: | 64 |
| Max Digital Inputs on Backplane: | 32 |
| Max PID Loops: | 16 |
| Max Calculated Variables: | 8 |
| Max Flow Meters: | 8 |
| Max Programmers: | 8 |
| Max Vacuum Gauges: | 8 |
| Max Probes: | 8 |



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|--------------------|---|
| Mounting: | DIN rail |
| Display: | Remote Configurable Color Touch Screen |
| Supply Power: | 24 Volts DC |
| Input Types: | TC, mV, mA |
| Accuracy: | < 1% |
| Control Type: | Proportional (PID) - On/Off or Analog Out |
| Control Algorithm: | Temperature, Carbon, Dew Point, Pressure, Gas Flow, User-Defined |
| Configuration: | Touch Screen or PC Configurator |
| Communications: | Ethernet (Modbus TCP), Modbus RTU (RS485), Allen Bradley DF1, Televac MM200 |

TS Manager - Data management for touch screen flashcard. Remote data viewer, historical data backup, SuperDATA integration.

Software Configuration/Remote Management



Super Systems
 incorporated

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