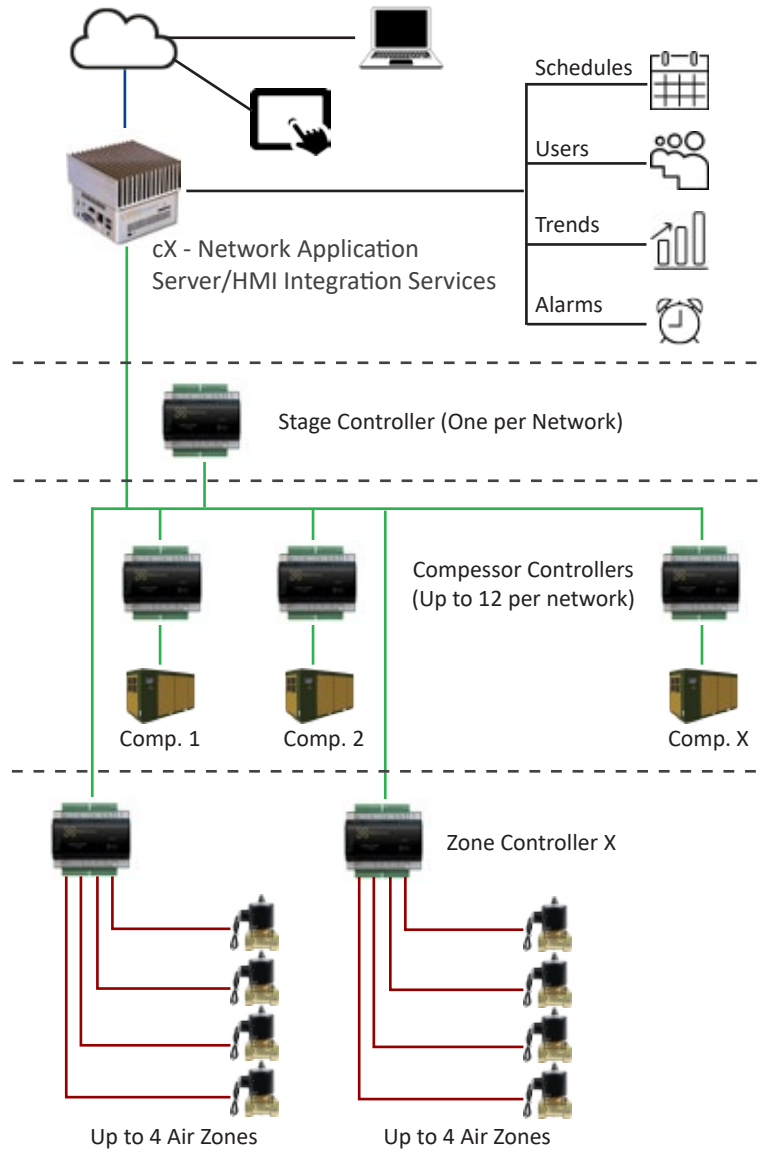


### Applications

The typical application of the OPIX Airtight™ profile is control of industrial compressed air systems. OPIX Airtight eliminates energy waste, provides state of the art compressor sequencing, load matching, independent user zones with isolation valves, pressure monitoring. OPIX Airtight communicates to compressors with the built-in ModBus protocol, or direct digital control with physical I/O.

### Benefits

- Remove energy waste
- Reduced utility costs
- Extend equipment life
- Save maintenance expenses
- Title 24 compliance
- Increase performance of old compressors
- Convenient single point monitoring and control of entire system
- Simple scheduling engine
- On-demand zone control
- Facilitates lower pressure setpoints
- Trends, analytics, reports, charts
- Seamless Integration with other systems
  - OPIX iMech™
  - OPIX iLight™
  - Other Vendors™



### Solution/L-Series Controller

L-Series™ logic controllers are used for physical I/O, application logic, and ModBus communications. The L-Series Controller is a member of a complete family of logic controllers ranging from 2 inputs/2 outputs, to 12 inputs/12 outputs. The 12 inputs include: 2 resistive-sensor-only inputs and up to 10 universal inputs. Universal inputs can accept 0-10V, 0-20mA, resistive and dry-contact signals. UI type is software selectable (no jumpers). Up to 8 Digital outputs are triac digital on/off or floatingpoint. Up to 4 fused Universal analog outputs are capable of 0-10volts and adjustable within that range, or digital (0-12V DC), 20V DC on-board power supply provides power for loop-powered 4-20mA sensors and is fused. DIN rail mounting is integrated into enclosure for rapid installation. With the addition of the cX network appliance, the Airtight™ system includes a customizable graphical user interface (GUI), scheduling, trending, alarm notifications, detailed system control, monitoring, and optionally remote access with Mobile/Desktop App. An Installer can graphically configure the system including data entry of critical compressor specific information. Compressor data is used in our proprietary algorithm to continuously calculate optimal system operating parameters. This feature allows for large energy savings compared to standard sequencers or local PLC applications. Airtight™ is capable of large installations of up to 12 compressors with no limit on the number of controlled zones, filters, drains, pressure sensing locations, air dryers, etc. Airtight™ energy and alarm monitoring is enriched by constant communication with the native compressor controller by built-in ModBus. This information is used in smart control, and is stored as trend and alarm information in a SQL Databases. Trend and alarm information is available for local or remote retrieval by simple download using the App. Airtight™ is part of a large family of OPIX Now!™ Automation Solutions catering to a vision of fully integrated facilities including Building Automation, Irrigation, Lighting, and Industrial Automation.

## Master Controller Application

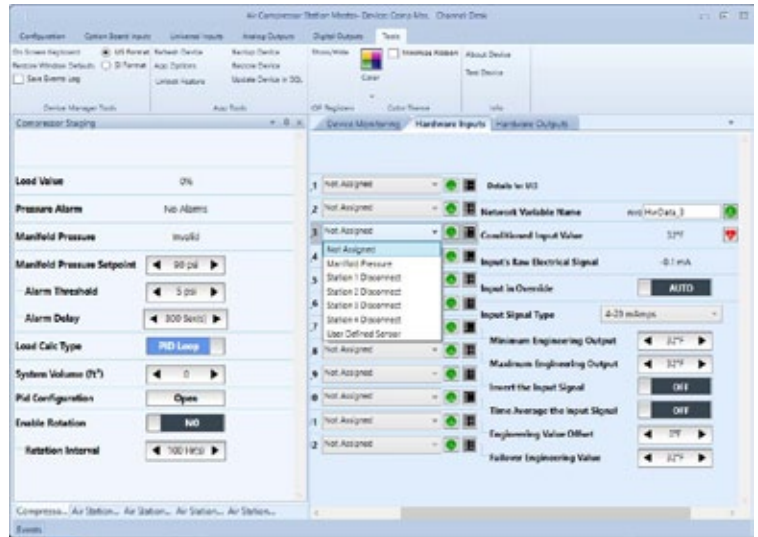
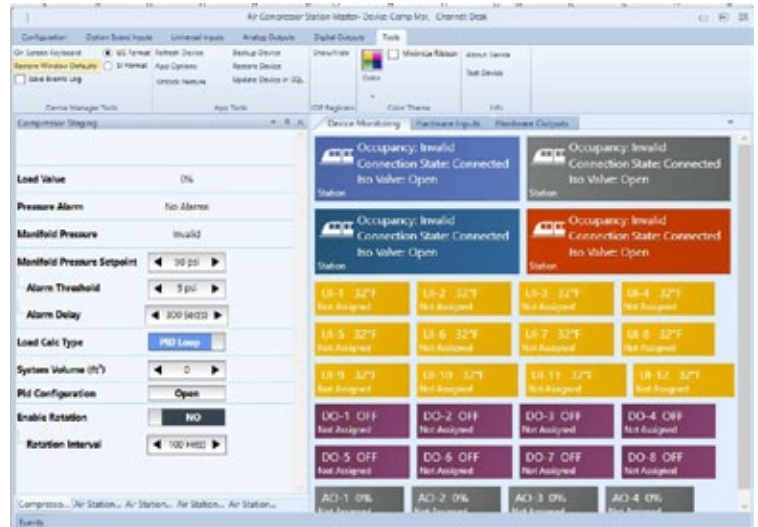
The Airtight™ master controller is used to monitor and select the appropriate compressors for stable and efficient control of the air system pressures. The master controller can run up-to 4 air compressor rooms - individually to control separate pressure headers or in combination for more efficient use of the of the available compressors.

## Software

- Up to 4 separate air compressor rooms.
- 2 types of control algorithms provided, standard PID control or pressure degradation control.
- System occupancy can come from time of day or machine use signals (on demand).
- User configurable pressure control alarms.
- Will make use of multiple manifold pressure sensors for redundancy and to insure stable pressures across the entire facility.
- Configurable compressor rotation to equalize compressor use times. Will rotate based on individual compressors groups of similar size.
- Isolation valve control for connecting room manifolds together.
- Compressor room disconnection via software and hardware commands.
- Slave mode for any unused I/O, which can be bound to another controller.

## System Configuration

The OPIX Now!™ Net-Builder provides graphical user interface for configuration and monitoring. Net-Builder simplifies hardware I/O customization, communications parameters, control sequences. Net-Builder can be executed from within network management tools such as LonMaker for Windows or similar





## Compressor Controller Application

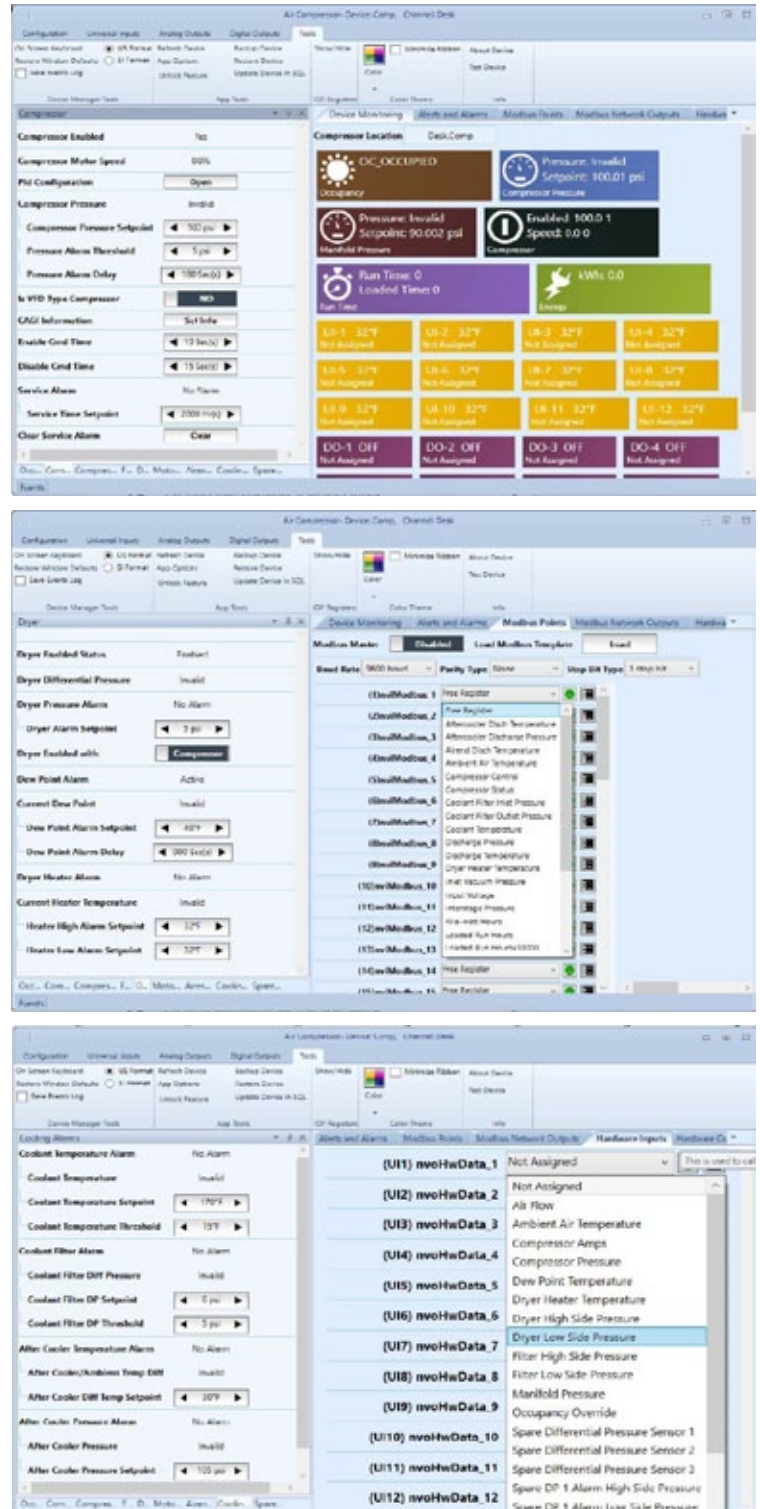
The Airtight™ compressor controller is a highly configurable industrial compressor controller. It is capable of controlling and monitoring various functions of an air compressor via the use of the on-board Modbus communication or hardware I/O or a combination of both.

## Software

- Variable speed, loaded-unloaded, and standard on/off all supported.
- System occupancy can come from time of day or machine use signals (on demand).
- Ability to monitor and control dryer systems.
- 4 differential pressure inputs for monitoring and alarming. Can use differential pressure or separate high/low pressure sensors.
- Monitoring of runtimes and kilo-watt hours
  - Built in Alarming
  - Local pressure control Alarms
  - Service Alerts
  - Inlet Filter/Vacuum Alarms
  - Motor and AC/DC Voltage Alarms
  - Airend Temperature Alarms
  - Interstage Alarms
  - Coolant Temperature/Pressure Alarms
  - Aftercooler Alarms
  - Dryer Alarms
  - Dew Point Alarm
  - Many more
- Up to 50 Modbus points per controller. Unassigned Modbus points can be used for monitoring, alarming, or slave command.
- Slave mode for any unused I/O, which can be bound to another controller.

## System Configuration

The OPIX Now!™ Net-Builder provides graphical user interface for configuration and monitoring. Net-Builder simplifies hardware I/O customization, communications parameters, control sequences. Net-Builder can be executed from within network management tools such as LonMaker for Windows or similar



## Zone Valve Application

The Airtight™ compressed air valve controller is used to schedule, monitor and control a branch or even a single machine or tool. Each controller is capable of handling up to 4 separate valves for lower cost job installations, enabling the use of more valve packages and providing additional savings from reduced air leakage and lowered compressor needs.

## Software

- User configurable isolation mode or pressure control mode available. Configurable on a per valve bases.
- Full pid branch pressure control with adjustable set-points, per valve.
- System occupancy can come from time of day or machine use signals (on demand).
- Software and hardware options for timed occupancy override.
- Signal light output control for with adjustable flash mode timing to indicate to the local user when air is scheduled to shutoff.
- Ability for forward multiple attached manifold pressure sensors to the master controller for easy installation.
- Pressure Control Alarms
- Pressure Sensor Alarms
- Up to 50 Modbus points per controller. Unassigned Modbus points can be used for monitoring, alarming, or slave command.
- Slave mode for any unused I/O, which can be bound to another controller

## System Configuration

The OPIX Now!™ Net-Builder provides graphical user interface for configuration and monitoring. Net-Builder simplifies hardware I/O customization, communications parameters, control sequences. Net-Builder can be executed from within network management tools such as LonMaker for Windows or similar

