Building Automation Systems (BAS)

Controls for the Worldwide Community....

The PSC2 and related control products have been manufactured and successfully installed in the commercial, industrial and retail markets of USA since 1982 and in Australia since 2003.

During that period the controls industry has shifted focus towards sophisticated and expensive software, open protocols and other enhancements which provide no functional differences in operation, but have significantly increased the cost of installations. Control strategies have not changed significantly, with mechanical equipment still cycled or modulated to maintain a desired condition.

We recognise the benefits this new technology has afforded the larger, multi-building or campus installations, and have developed interfaces which will integrate with these open systems. Our main focus is in existing small and medium size facilities which make up 95% of the total building market, yet are unable to implement controls due to the high initial cost and ownership expense of these systems.

We design and apply systems for retrofit and new construction customers unable to justify, or which do not require this new era of controls. Our systems provide accurate and proven control strategies and software which provide the highest return on investment and lowest cost of ownership, while insuring a consistent and energy efficient operation of the facility.

A system which presents all the benefits of building automation at a reasonable cost.

System Applications

This BAS system is designed for commercial, industrial and retail applications. The system hardware provides the required points for universal control of any HVAC, lighting or mechanical system, and can be used to control processes in industrial facilities. The BAS system can be applied to many OEM manufacturers or system integrators equipment for control per their exacting requirements.

Commercial Facilities
- Office buildings
- Educational facilities

Industrial Facilities
- Manufacturing facilities
- Government facilities

Retail Facilities
- Convenience stores
- Restaurants
- Shopping malls
- Stand-alone retailers

Mechanical Systems
- Chillers
- Boilers
- Pumping systems
- Rooftop units
- Air handlers
- Water source heat pumps
- Loop Controls

OEM Applications
- Custom applications for OEM equipment manufacturer or integrator

Control Products

Our manufactured products are simple to understand, simple to install and simple to service. A limited product offering is based on the fact that all controls simply turn on/off or modulate a field device. We have designed our controllers to be universal in nature, controlling anything from lighting to chillers. This product line reduces manufacturing costs, service and support costs, and allows us to keep down the cost of building automation.

Supervisor Controller
- Web-based control interface

PSC Controller
- 8 digital outputs / 8 universal Inputs / 4 digital metering Inputs
- 4 analog outputs for use with PSC controller

VAV Controller
- Integral actuator and pressure differential sensor
- Floating 3-wire damper output
- 2 analog inputs / 2 digital inputs
- Pressure independent control

VAV-R Controller
- Retrofit applications
- Same as VAV without actuator
- Snap-Track mounting

IPM Network Module
- Provides network access to PSC Controller

IPR Repeater Module
- Allows multiple channel connection

System Design Services

We can provide all system design documents for field installation personnel. Our experience in HVAC and lighting systems allows us to assist in the design and implementation of control strategies for a multitude of building types and mechanical systems. All design packages include complete installation and termination drawings. Our design services also include specifying and providing all field devices such as sensors, actuators, valves and other system components.

Design Assistance
- Develop point listing for new and retrofit applications
- Develop control strategies and sequences
- Assist in design and application of mechanical equipment
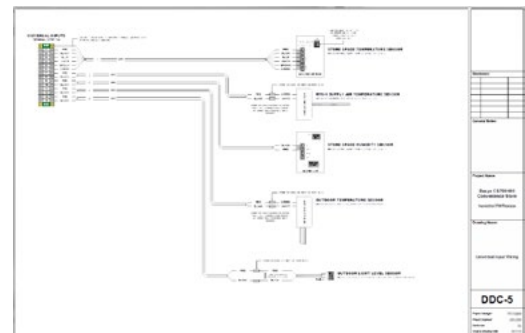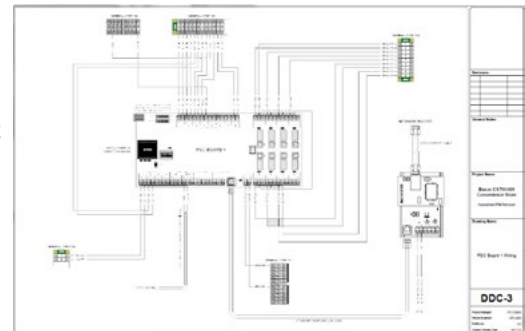
Panel Design
- Design panels for site specific operation
- Develop panel assembly drawings
- Provide complete documentation on internal wiring

System Components
- Selection of required field devices
- Provide all field materials for a complete installation package
- Single source responsibility for entire system
- Provide wiring details for all system third party components

Installation Assistance
- Telephone assistance for field personnel
- On-site installation assistance and supervision available
- System start-up assistance through modem or internet connection

Panel Assembly Services

Once the system design is completed, we can provide assembled panels to our customers, which eliminates the high cost of field assembly and programming by the installing contractor. Panels are job specific and completely wired, programmed and tested to facilitate easy installation and start-up.

- NEMA enclosures for specific applications
- Backplate assemblies for direct switchgear installation
- All control hardware, transformers and power supplies included
- All I/O points wired to clearly marked terminal strips
- Complete programming for required system operation
- Factory tested

Interface Software

The BAS system includes our graphical user interface, which allows direct laptop connection or connection via dial-up modem or internet access. The software provides easy to understand programming and graphic views of system operation, and is a license-free package which may be installed on as many computers as desired at no additional expense. Our Supervisor controller provides extensive interface capabilities including a browser-based interface for access through any computer with internet access. A BACnet or Lonworks gateway module may be added to the Supervisor controller for interface with third-party front end systems.

BAS Graphics Interface Program

- Single software package for modem, internet or direct laptop connection
- License free - Install on multiple computers with no additional charge
- Easy to understand status and programming screens
- Equipment views and floor plans showing system status

Web-based Interface

- Connection through any PC with internet access
- Simple screens showing all system operations

BACnet Gateway

- Allows connection to existing BACnet systems as a BACnet device
- Supports BACnet IP or BACnet MSTP
- Integration with competitive systems

Lonworks Gateway

- Allows connection to existing Lonworks systems
- Integration with competitive systems