

VCI Envision Controller - BACnet

DESCRIPTION

The VCI Envision Controller-BACnet (VEC/BACnet) is a multi-user, multi-tasking controller which provides real time monitoring and control to HVAC and lighting systems for today's building owners.

This versatile controller uses state-of-the-art Direct Digital Control (DDC) technology to provide cost effective solutions to building automation and energy management. The VEC/BACnet uses ASHRAE BACnet MS/TP, BACnet Ethernet, and BACnet IP protocols to communicate to BACnet compliant devices.

A single VEC/BACnet can monitor and control a combination of up to 1000 BACnet objects. Each VEC/BACnet is fully stand-alone for reliable HVAC/lighting control. Networking of VECs allows for the control and monitoring of an unlimited number of points, either locally or across town. The VEC/BACnet can reside on the same Ethernet network as VEC's with legacy field controllers.

Fully modular architecture allows on-line expansion at any time. A complete energy management and control system can be built simply by starting with one or more VEC/BACnet's; then as budgets permit, more VEC/BACnet's can be networked together using an Ethernet network to form a comprehensive system of controllers.

The database and control algorithms for the VEC/BACnet are stored on solid state disk. This means that this vital information will be preserved over any length of power interruption and, specifically, that there is no reliance on the battery. The purpose of the battery is to power the real time clock.

The VEC/BACnet provides owners with a number of software programs to efficiently manage energy consumption. These include:

- Autoscheduling for each point
- Optimal start/stop
- Electric demand limiting
- Enthalpy control
- Automatic setpoint reset
- PID control



A user with the appropriate security access level can interact, either locally or using an optional central monitoring computer, with the system to:

- Display and acknowledge status conditions and alarms
- Manually control outputs
- Modify operating parameters, setpoints, time schedules, etc.
- Create or edit Control Description Modules (CDM)
- Access data base fields
- Change user access levels

The built-in alarm processor in the VEC/BACnet monitors and reports on hardware conditions and the state of both analog and digital points. It provides:

- Full scale and zero scale input failures
- Critical high and low alarms
- Deviation high and deviation low alarms for analog outputs
- User defined alarm levels
- Rate of change for analog inputs
- Change of state messages for digital inputs and outputs
- Unexpected start/stop and failed to start/stop for digital outputs

VEC SPECIFICATONS

BIBBs Supported

- DS-RP-A,B
- DS-RPM-A,B
- DS-WP-A,B
- DS-WPM-B
- DM-DDB-A,B
- DM-DOB-A,B
- DM-TS-A,B
- DM-UTC-B

Microprocessor

- Kontron PITX-E38
- Intel Atom E3815 @ 1.46 GHZ
- 10 / 100 / 1000 Mbps RJ45 Ethernet LAN
- 4 GB RAM
- SATA SSD 64 GB Solid State Disk
- 3x USB 2.0 and 1xUSB 2.0/3.0
- Battery module included with board
- Operating Temperature range 0C to +70C

Memory

- 4 GB RAM

Operating System

- Windows 10 IOT Enterprise 2016 LTSB 64 bit

Capacity

- Up to 1000 BACnet objects

Communications

- 2 BACnet MS/TP ports
- Auto detect 10/100/1000Mbps RJ45 Port

Miscellaneous

- Dimensions: 100 mm x 72 mm (Pico-ITX)
- Operating Temperature PITX: -25 ° C to +75 ° C
- Operating Temperature SSD: 0 ° C to +70 ° C
- .Power Supply: Single Supply 5 V DC

Optional Components

- USB disk drive for creating / restoring backups for off site storage



In depth details on our product lines and services, as well as technical support, is available on-line through our web site. Visit regularly for all the latest news from **VCI CONTROLS**.

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