VCI Envision Controller (VEC)

DESCRIPTION

The VCI Envision Controller (VEC) 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.

A single VEC can monitor and control a combination of up to 1000 analog and digital points. Each VEC 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 is compatible with VCI's legacy 9100, and NCx 2000 systems.

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 VECs; then as budgets permit, more VECs can be networked together, either using an Ethernet network or a dedicated VCI Local Area Network (LAN), to form a comprehensive system of controllers. When a VCI LAN is used, VECs may be networked with, and inter-operate with, legacy VCI PCUs.

The database and control algorithms for the VEC 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 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 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

Microprocessor
- PC/104 Processor Module
- Intel Pentium / AMD K6 166Mhz Processor
- 10 / 100 dual speed Ethernet
- 32 MB Solid State Disk
- PC/104 expansion Interface
- USB interface
- Watchdog timer
- Vcc sensing reset circuit
- Enhanced Flash BIOS
- Real time clock

Memory
- 32Kbyte Write-Back Cache
- 64 MB system RAM

Operating System
- Windows CE Version 4.x

Capacity
- Up to 1000 input / output points

Battery
- Lithium battery with a life expectancy of 10 years

Communications
- Linx current loop driver to FIDs
- Autodetect 10BaseT / 100BaseTX
- VCI Local Area Network
- Serial ports

Miscellaneous
- Board Size: 90 mm x 96 mm
- Storage Temperature: -10 ° C to 85 °C
- Operating Temperature: 0 ° C to 60 ° C
- Humidity: 10% to 95% (non-condensing)
- 120 VAC, single phase, 10amp power (incl. dual power outlets)

Optional Components
- Integrated LCD operator panel and keyboard
- Floppy 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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Rev 5-0 Feb 2011