22-Point Fully Programmable BAS Controller

OVERVIEW

The HVAC building automation controls market requires a powerful Building Automation controller that provides scalable, consolidated control in a fully programmable, feature-rich LonWorks® device.

Efficient Building Automation Corporation's Circon™ **UHC-400** controller features over 400 Standard Network Variables (SNVTs), a variety of configurable control blocks, and the power of the Circon Catalyst® graphical programming tool to provide exceptional application flexibility. The UHC-400 is all you need in a 22-point BAS controller.

APPLICATIONS

The UHC-400 can be used to implement tailored control applications for unique or custom HVAC mechanical designs. The UHC-400's 12 universal inputs, 10 universal outputs, and control blocks are easily configured using Windows®-based software. Flexible alarm, trend, schedule, and PID control blocks can be used to quickly create effective control and monitoring solutions.

EBAC's powerful and easy to use Circon Catalyst graphical programming environment can be used to implement your most complicated control sequences. Catalyst is flexible and powerful, allowing the user to create tailored control sequences for chilled water systems, condenser loops, heating water systems, packaged air handling units, built up air handling units or any custom HVAC mechanical design.

EBAC's Windows-based configuration software for the UHC-400 and the Circon Catalyst programming tool are available at no charge, and are fully compatible with Echelon Corporation's LNS® platform.

ORDERING INFORMATION

Part number: 10-0450

FEATURES

→ LonMark compliant, with easy-to-use LNS plug-in for seamless integration into interoperable LonWorks® networks

→ Powerful, industry-leading 32-bit ARM processor

→ Fully programmable with flexible and easy-to-use Circon Catalyst® programming tool; with support for floating point and structured SNVTs

→ 12 universal inputs and 10 universal outputs configurable for voltage, current, resistance and dry contacts; all are software configurable

→ High performance LonTalk stack with support over 400 network variables (NVs) including 256 dynamic NVs and 256 address table entries (can be bound to 256 different devices on the LON network)

→ Battery backed real-time clock (on-board lithium rechargeable) allows for time-based events, data logging and network master operation

→ Quick network access through an audio jack

→ Auxiliary 15 VDC output for powering peripheral devices

→ Adaptable for standalone applications (with on-board scheduling, alarming and trending) or as part of a networked operation

SPECIFICATIONS

I/O CAPABILITY

12 Universal Inputs:	10 kΩ thermistor, 1 kΩ RTD, 4-20 mA current, 0-10 VDC, digital (dry contact)
10 Universal Outputs:	4-20 mA current, 0-10 VDC, digital. Maximum drive of 100 mA per output.

HARDWARE

Processor:	ARM7 @ 50MHz
Memory:	16 MB Flash, 8MB RAM
EIA-709 (LonTalk) Port:	TP/FT-10 @ 78 kbps
Ethernet Port:	10/100Base-T (auto-selecting)
Serial Ports:	1 EIA-232 port, 1 RS-485 port (software support coming soon)

POWER SUPPLY

Controller:	1.6A, 24 VAC, 50-60 Hz, or 24 VDC
External Loads:	15 VDC output terminal provides 300 mA maximum
Fuse:	2.5 A slow-blow (Bussman GMD-2.5A, Littlefuse 23902.5A)
Power Fail Protection:	Rechargeable lithium battery retains data in RAM and clock

MECHANICAL

Operating Temperature:	32°F to 122°F (0°C to 50°C)
Relative Humidity:	5% to 95% RH (non-condensing)
Weight:	1 lb. 9 oz. (725 grams)
Enclosure Dimensions:	1.9" x 5" x 11.8" (48mm x 127mm x 299mm)
Enclosure Material:	PVC, inflammability class V0 (UL94)
Wire Type:	AWG22 to AWG16 stranded; use copper conductors only
Mounting:	DIN rail

AGENCY LISTINGS AND REGULATORY COMPLIANCE

Class II device (when powered by a class II supply)

CSA 22.2 #205-M1983, #950-M89

UL916 certification for Energy Management Equipment

Part 15, Part J, Class A of the FCC Rule for Radio Frequency Devices

EMC Directive 89/336/EEC

LonMark 3.4 Certified (pending)

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