Fully Programmable HVAC Controller

OVERVIEW

The HVAC controls market requires a DDC controller that provides consolidated control in a fully programmable, feature–rich LonMark® certifed device.

The Circon™ UHC–300 unites a variety of configurable control blocks combined with the power of the Circon BASIC programming language to provide exceptional application flexibility. The UHC–300 is all you need in a 22–point DDC controller.

APPLICATIONS

Use the UHC–300 to implement tailored control applications for unique or custom HVAC mechanical designs. The UHC–300's 12 universal inputs, 10 universal outputs and all control blocks are easily configured using simple Windows®–based software. Flexible alarm, trend, schedule and PID control blocks can be used to quickly create effective control and monitoring solutions.

Circon's powerful BASIC programming language can be used, along with the configurable control blocks and the input/output points to implement more complicated control sequences. Circon BASIC is flexible and powerful, allowing a user with limited programming experience 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.

The Windows–based configuration and viewer software provided with the UHC–300, complemented by the Circon BASIC Compiler, is all fully compatible with Echelon® Corporation's LNS® software.

ORDERING INFORMATION

Part number: 10–0367

Features and Benefits

- Seamless integration into interoperable LonWorks® networks
- Fully programmable with easy to use Circon BASIC programming language
- 12 universal inputs configurable for voltage, current, resistance and dry contacts
- 10 universal outputs configurable for voltage, current, and digital
- Onboard real–time clock allows for time–based events, data logging, or network master operation
- All memory is protected with a lithium battery
- Quick network access through an audio jack
- Faster, easier to use LNS plug–ins
- Auxiliary 15 VDC output for powering peripheral devices
- Adaptable for stand–alone or networked operation

LONMARK 3.3

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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 100 mA per output

COMMUNICATIONS

Transceiver	Echelon Free Topology Transceiver (FTT–10A @ 78 kbps)
Wire type	AWG22 to AWG16 stranded (use only twisted pair wiring and copper conductors for network)
Neuron®	3150, 10 MHz

POWER SUPPLY

Controller	2.0 A, 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	Lithium battery retains data in RAM and clock

MECHANICAL

Operating temperature	32°F to 122°F (0°C to 50°C)
Relative humidity	20% to 95% RH (non–condensing)
Weight	1 lb. 6 oz. (617 grams)
Enclosure dimensions:	1.9″ x 5″ x 10.3″ (48 mm x 127 mm x 262 mm); Enclosure material: PVC, inflammablility class V0 (UL94)
Wire type	AWG 22 to AWG 16 stranded. Use copper conductors only.
Mounting	DIN rail

AGENCY LISTINGS AND REGULATORY COMPLIANCE

Class II device (when powered by class II supply)
CSA 22.2 #205–M1983, #950–M89
UL 916 certification for Energy Management Equipment
Part 15, Part J, Class A of the FCC rules for Radio Frequency Devices
EMC Directive 89/336/EEC
LonMark 3.3 certified

NRTL/C
LR102822

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Circon Systems Corporation operates a quality management system independently certified to comply with the requirements of ISO 9001:2000.