ROOFTOP AC TERMINAL UNIT CONTROLLER

OVERVIEW

The HVAC building automation controls market requires a flexible and economical DDC controller that provides optimum zone control for packaged rooftop terminal unit applications.

Efficient Building Automation Corporation's Circon™ **SCC-310-RTC** comes complete with easy-to-configure rooftop AC terminal unit control software, combined with a cost-effective hardware platform to provide exceptional flexibility. Configurable for a variety of applications, the SCC-310-RTC is all you need in a 13 point rooftop AC unit DDC controller.

APPLICATIONS

The SCC-310-RTC can be used in any packaged rooftop AC unit application. It maintains a constant zone temperature through configurable, sequenced control of the supply fan, heating source, cooling source, and an optional outdoor air damper and exhaust air damper or fan. Optional secondary terminal or perimeter heating control increases application flexibility.

To optimize energy usage with minimal impact on comfort, an internal schedule allows the SCC-310-RTC to adapt its control sequence to occupied, unoccupied or standby setpoints, and implement demand limiting from a supervisory control source.

A versatile side loop provides three styles of control for a wide range of equipment including unit heater, baseboard heater, exhaust fan, lighting, maintaining space or duct static pressure, and more. The side loop together with other unused I/O can save the cost of additional controllers for simple applications.

EBAC's free Windows® based configuration software for the SCC-310-RTC is fully compatible with Echelon® Corporation's LNS® and Tridium® Inc.'s Niagara^AX®.

ORDERING INFORMATION

Part number: 10-0433

FEATURES

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

→ Fast and easy-to-use Tridium Niagara^AX wizards for seamless integration into interoperable Niagara networks

→ Easily mounts directly inside rooftop unit enclosure

→ 5 relay outputs simplify connecting with standard rooftop unit 5-wire interface

→ Analog output provides modulated economizer control to optimize use of outdoor air

→ 5 resistive inputs for space temperature (required), supply air temperature, mixed air temperature, setpoint adjust, fan, filter window and occupancy sensors

→ Analog input enables demand control ventilation or dehumidification control

→ Side loop provides independent control for additional simple HVAC equipment

→ Onboard soft clock, scheduling, and trending to decrease costs and increase flexibility

→ Transmits alarms for local or remote annunciation

SPECIFICATIONS

I/O CAPABILITY

6 Inputs:	Five 10 kΩ thermistor, Precon curve: Type II model 24 or Type III model 3, or dry contact
	One voltage, 0-10 VDC
2 Analog Outputs:	0-10 VDC, maximum drive of 100 mA per output
5 Digital Outputs:	Dry contact relay: 2.0 A maximum at 24 VAC or 24 VDC

COMMUNICATIONS

Transceiver:	Echelon Free Topology Transceiver (FTT-10A @ 78 kbps)
Wire Type:	AWG22 to AWG16 stranded (use 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
Fuse:	2.5 A slow-blow (Bussman GMD-2.0A, Littlefuse 23902.0A)
Rectifier:	Half-wave

MECHANICAL

Operating Temperature:	32°F to 122°F (0°C to 50°C)
Relative Humidity:	5% to 95% RH (non-condensing)
Weight:	15 oz. (420 grams)
Enclosure Dimensions:	0.8" x 5" x 5.8" (20.3mm x 127mm x 147mm)
Enclosure Material:	Metal
Mounting:	Four sheet metal screws, optional DIN rail adaptor (part # 50-0550)

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, Class B of the FCC Rule for Radio Frequency Devices

EMC Directive 89/336/EEC

LonMark 3.4 Certified, Functional Profile: 8504 Space Comfort Controller

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