



Datasheet

Rooftop Controller (PL-C1000-RTU)

Description

The C1000 RTU rooftop controller is designed to control a variety of different rooftop units or HVAC air treatment equipment. The on-board microcontroller offers precise digital control to maximize performance. The available control sequences are fully configurable, either locally or remotely, using free software. The C1000 RTU uses PI (Proportional-Integral) control loops to optimize HVAC management and offers a variety of functions such as preheating, morning warm-up, cooling priority and more. The C1000 RTU also acts as a Master controller when connected to a ProLon network.

Features

- Remote monitoring and configuration with FREE ProLon Focus software
- Stand-alone or networked (up to 127 nodes)
- Dehumidification sequences available when networked with a ProLon humidity controller
- Proportional integral (PI) control loops maximize performance
- 4 digital outputs and 1 analog output equipped with resettable fuses
- Built-in protection sequences with configurable temperature limits and minimum delays
- Control up to 2 stages of heating and 4 stages of cooling -or- full modulation
- Configurable unoccupied mode sequences
- FlexiZone system facilitates multiple zone management by evaluating the average weighted demand of the zones using customized groups

Technical Specifications

Supply: 24 VAC \pm 10%, 50/60 Hz, Class 2

Power: 2 VA (consumption), 32 VA (input)

Inputs: Outdoor – thermistor 10K
Return – thermistor 10K
Supply – thermistor 10K
External clock or Proof of fan– dry contact

Digital Outputs: 4 triac outputs, 10-30 VAC source or sink, 300 mA max (resettable fuse)

Analog Output: 1 output 0-10 VDC / 2-10 VDC / 0-5 VDC, 40 mA max (resettable fuse)

Indication lights (LED): State of each output / Communication / Power / State of microprocessor

Microprocessor: PIC18F6722, 8 bits, 40 MHz, 128KB FLASH memory

Casing: Molded ABS, UL94-HB

Communication: Modbus RTU (RS485) up to 127 nodes

Baud Rates: 9600, 19200, 38400, 57600, 76800, 115200

Connection: Removable screw-type terminal blocks (max 16 AWG) and RJ45 modular jacks

Dimensions: 6.5" x 5.3" (165 mm x 135 mm)

Environment: 32-122 °F (0-50 °C) Non-Condensing

Certification: RoHS, FCC part 15: 2012 class B