Datasheet

Rooftop Controller (PL-C1050-RTU)

Description

The C1050 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 C1050 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 C1050 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 ±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)

- **Dimensions**: 6.2" x 5.2" x 2.5" (157mm x 132mm x 64mm)

- **Weight**: 0.85 lbs (0.39 kg)

- **Environment**: -4 to 122 ºF (-20 to 50 ºC) Non-Condensing

- **Certification**: UL916 Energy Management Equipment, CAN/CSA-C22.2, RoHS, FCC part 15: 2012 class B

Phone 450-973-5100   I   **Toll Free** 1-877-977-6566

17510 rue Charles, Suite 100, Mirabel, QC, J7J 1X9   **www.proloncontrols.com**