



Datasheet

Fan Coil Unit Controller (PL-C1050-FCU)

Description

The C1050 FCU Fan Coil Unit controller is designed to control a variety of 2-pipe and 4-pipe hydronic heating and cooling units. 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 FCU uses PI (Proportional-Integral) control loops to optimize HVAC management and offers a variety of functions such as 2-pipe automatic mode change based on water temperature, automatic purge cycles to verify water temperature and prevent stagnation in coils, secondary backup heat source control, and more. The C1050 FCU will share zone demand data when connected to a ProLon network.

Features

- Designed for hydronic systems controlling a space temperature using a single space temperature sensor
- Remote monitoring and configuration with FREE ProLon Focus software
- Stand-alone or networked (up to 127 nodes)
- Proportional integral (PI) control loops maximize performance
- 4 digital outputs capable of sync or source operation and 1 analog output equipped with self-resetting fuses
- Automatic changeover between heating and cooling on 2-pipe systems
- Modulating valve control for heating
- On/Off control for heating and/or cooling
- Separate On/Off or modulating (PWM) aux heat output available
- Configurable unoccupied mode sequences
- Multi speed fan control options
- Several configurable safety and efficiency limits available

Technical Specifications

- **Supply:** 24 VAC \pm 10%, 50/60 Hz, Class 2
- **Power:** 2 VA (consumption), 32 VA (input)
- **Inputs:** Outdoor Air Temp / Supply Air Temp / Supply Water Temp / dry contact for proof of fan or leak alarm
- **Digital Outputs:** 4 triac outputs, 10-30 VAC source or sink, 300 mA max (self-resetting fuse)
- **Analog Output:** 1 output 0-10 VDC / 2-10 VDC / 0-5 VDC, 40 mA max (self-resetting 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" (157 mm x 132 mm x 64 mm)
- **Weight:** 0.85 lbs (0.39 kg)
- **Environment:** -4 to 122 °F (-20 to 50 °C) Non-Condensing
- **Certification:** UL916 Energy Management Equipment, CAN/CSA-C22.2, RoHS, FCC part 15: 2012 class B