

FCU-4

The FCU-4 fan coil unit controller is a stand-alone microprocessor based controller for four-pipe fan coil units with a coil for heating and a coil for cooling. This application includes fan coil units with two modulated floating setpoint valves and a fan.

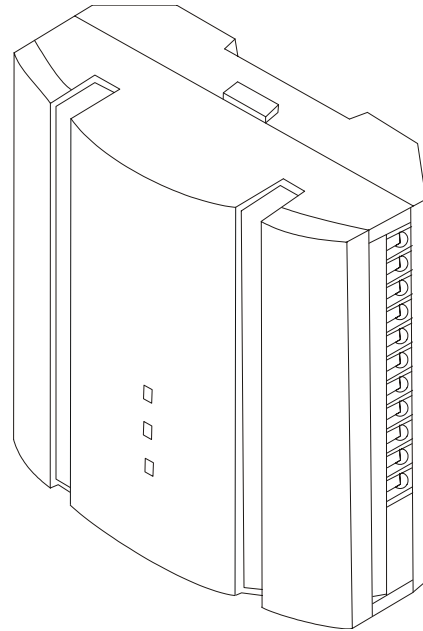
Overview

A digital input is provided to monitor equipment status. A two wire serial interface is provided for the thermostat. The valves are controlled with two floating setpoint outputs. The unit supply fan is controlled by a triac output.

The controller is based on LONWORKS® networking technology. The controller can be networked to a higher-level control system for monitoring and control applications.

Features

- Modulated floating setpoint valve for heating
- Modulated floating setpoint valve for cooling
- Networking of multiple units
- Individual temperature setpoints for occupied/unoccupied heat and cool
- P+I control of the valves
- LonWorks interface to building automation systems and host products
- Equipment status input for additional safety interlocks
- Thermostat with space temperature, setpoint adjust, fan override, occupancy override
- Fan control energized on call for heating or cooling
- Automatic heat/cool changeover
- Remote sensor capabilities
- Automatic configuration with the LCI
- Alarm/Event reporting



Innovex Technologies
511 Braddock Avenue
Turtle Creek, PA 15145
www.innovextechnologies.com

iWorX is a trademark of Innovex Technologies
LON, LONWORKS, & LONMARK are trademarks of Echelon Corporation

Specifications

Electrical

Inputs

- Cabling: twisted shielded pair, 18 AWG recommended—500 feet max. (152 meters)

(FCU-5)Equipment Status

- Dry Contact
- Normally Open
- 5 Volts DC Max

Thermostat Network

- 12 Volt nominal, internally limited to 0.04 Amps

Outputs

Fan, Heat Close, Heat Open, Cool Close, Cool Open (, FCU-5)

- 24 Volts AC Triac
- 1 A rms

FTT-10A Network

- Speed: 78KBPS
- Cabling: Maximum node-to-node distance: 1312 feet (400 meters)
- Maximum total distance: 1640 feet (500 meters)

Table 1: Network Wire Specifications

Cable Type	Pairs	Details	Connect Air Catalog No.
Level 4 22AWG (0.65mm)	1	Unshielded, Plenum, U.L. Type CMP	W221P-2001
Level 4 22AWG (0.65mm)	1	Unshielded, Non-Plenum, U.L. Type CM	W221P-1002

For detailed specifications, refer to the FTT-10A Free-Topology Transceiver User's Guide published by Echelon Corporation. For information on ordering Connect Air items, contact Connect Air International; 4240 B Street; Auburn, WA 98001 <www.connect-air.com>.

Power

Power Requirements

- 24 VAC nominal (requires an external supply)

Power Consumption

- With no external loads: 15 VA

Mechanical

Housing

- Dimensions: 4 3/8" high, 4 5/16" wide, 2" deep (111 mm high, 110 mm wide, 51 mm deep)
- ABS Polycarbonate

Weight

- Controller Weight: 0.45 pounds (0.22 kilograms)
- Shipping Weight: 0.60 pounds (0.28 kilograms)

Electronics

- Processor: 3150 Neuron 10 MHz
- Flash: 48 Kilobytes
- SRAM: 8 Kilobytes
- Termination: 0.197" (5.0 mm) Pluggable Terminal Blocks, 14-22 AWG

Environmental

- Temperature: 32 to 122 °F (0 to 50 °C)
- Humidity: 0 to 90%, non-condensing

Agency Listings

- UL916

Agency Compliances

- FCC Part 15 Class A