

Features

- Modern Appearance
- Stylish scroll wheel and buttons
- Large LCD with backlight
- Retention of temperature set-point and fan-speed upon power failure
- Unoccupied mode contact for energy saving
- 2-wire on-off, 0-10 VDC and 3-wire floating models
- Dual-output model provides auto cooling/heating changeover with adjustable deadband or/and manual override
- PI Algorithm (modulating models)
- Parameter setup manual
- Remote sensor capability
- Seasonal changeover sensor availability
- Optional remote controller

Selectable Functions

- Selectable °C or °F temperature display
- Field selectable program to retain last operating event upon power failure
- Measured temperature off-set
- Selectable P-band and I-time
- Selectable Actuator stroke time (3-wire floating model)
- Field selectable 1 to 5 K deadband for dual-output models
- Field adjustable high and low set point limit
- Field adjustable cooling and heating energy saving mode set points
- Selectable fan action in unoccupied mode
- Selectable Auto Fan sequence in heating mode
- Selectable operating mode sequence for dual-output models
- Selectable manual/auto operating sequence for single output models
- Selectable constant display of temperature between sensing or set-point



General

The ET200 Standalone LCD Fan Coil Thermostats are designed to control heating, cooling, or year round air conditioning units in commercial, industrial and residential Installation. Typical application includes the control of fan coil units, packaged terminal air conditioners and combination heating and cooling equipment. As part of the system that consists of two-way or three-way valve and a multi-speed line voltage fan.

Ordering

To order the ET200 Series thermostat, contact the nearest Cyrus' representative. Specify the desired product code number from model selection guide.

Product Overview

The ET200 are line voltage LCD fan coil thermostat with 5 basic models that cover all type of FCU standalone applications. There are models for cooling only, heating only and heating/cooling fan coil system integrate with 2-wire, 0-10 VDC or 3-wire input valve control. On-board high accuracy NTC sensor allows precision comfort control over occupied space area. The display temperature offset for the built-in temperature sensor will be compensated after being energized for approximately 15 minutes.

86 x 86mm size of ET200 allows for 75 x 75 x 35 mm standard wall box installation.

Model ET201

The Model ET201 is line voltage LCD (with backlit) fan coil thermostat that is designed for cooling only / heating only fan coil unit with 2-wire valve actuator application. Integral with system of Cooling/Heating-Fan-Off button that allows users to cutoff power for fan and the output for valve actuator. Simply pressing the fan speed button, allows users to select Auto-High-Med-Low fan speed. All fan outputs by relay that can withstand max. of 3 Amp (resistive) 1 Amp (Inductive) operating current.

Model ET201F

The Model ET201F is line voltage LCD (with backlit) fan coil thermostat that is designed for cooling only / heating only fan coil unit with 3-wire valve actuator application. Integral with system of Cooling/Heating-Fan-Off button that allows users to cutoff power for fan and the output for valve actuator. Simply pressing the fan speed button, allows users to select Auto-High-Med-Low fan speed. All fan outputs by relay that can withstand max. of 3 Amp (resistive) 1 Amp (Inductive) operating current.

Model 201A

The Model ET201A is line voltage LCD (with backlit) fan coil thermostat that is designed for cooling only / heating only fan coil unit with 0-10 VDC valve actuator application. Integral with system of Cooling/Heating-Fan-Off button that allows users to cutoff power for fan and the output for valve actuator. Simply pressing the fan speed button, allows users to select Auto-High-Med-Low fan speed. All fan outputs by relay that can withstand max. of 5 Amp (resistive) 2 Amp (Inductive) operating current.

Model ET202

The Model ET202 is line voltage LCD (with backlit) fan coil thermostat that is designed for cooling / heating fan coil unit with 2-wire valve actuator application. Integral with system of Cooling-Heating-Auto-Fan-Off button that allows users to cutoff power for fan and the output for valve actuators. Simply pressing the fan speed button, allows users to select Auto-High-Med-Low fan speed. All fan outputs by relay that can withstand max. of 3 Amp (resistive) 1 Amp (Inductive) operating current.

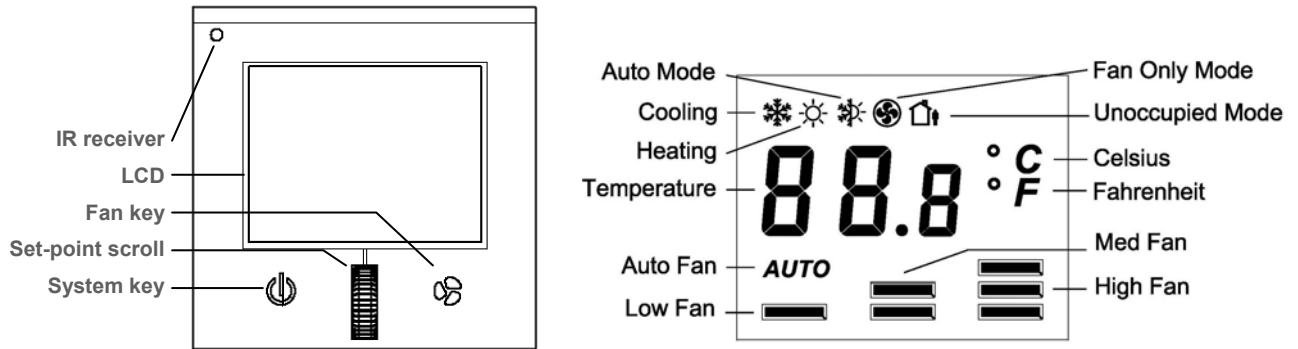
Model ET202A

The Model ET202A is line voltage LCD (with backlit) fan coil thermostat that is designed for cooling / heating fan coil unit with 0-10 VDC valve actuator application. Integral with system of Cooling-Heating-Auto-Fan-Off button that allows users to cutoff power for fan and the output for valve actuators. Simply pressing the fan speed button, allows users to select Auto-High-Med-Low fan speed. All fan outputs by relay that can withstand max. of 5 Amp (resistive) 2 Amp (Inductive) operating current.

Model Selection Guide

		ET2	0	1	-	R
Power	0 = 100 - 250 V, 50/60 Hz		0			
Valve Control Output	1 = 2-wire on-off (Heating only or Cooling only 2-pipe)					
	1F = 3-wire floating (Heating only or Cooling only 2-pipe)					
	1A = 0-10 VDC (Heating only or Cooling only 2-pipe)					
	2 = 2-wire on-off (Heating / Cooling 4-pipe)					
	2A = 0-10 VDC (Heating / Cooling 4-pipe)			1		
	R = IR Receiver for Remote Controller					R

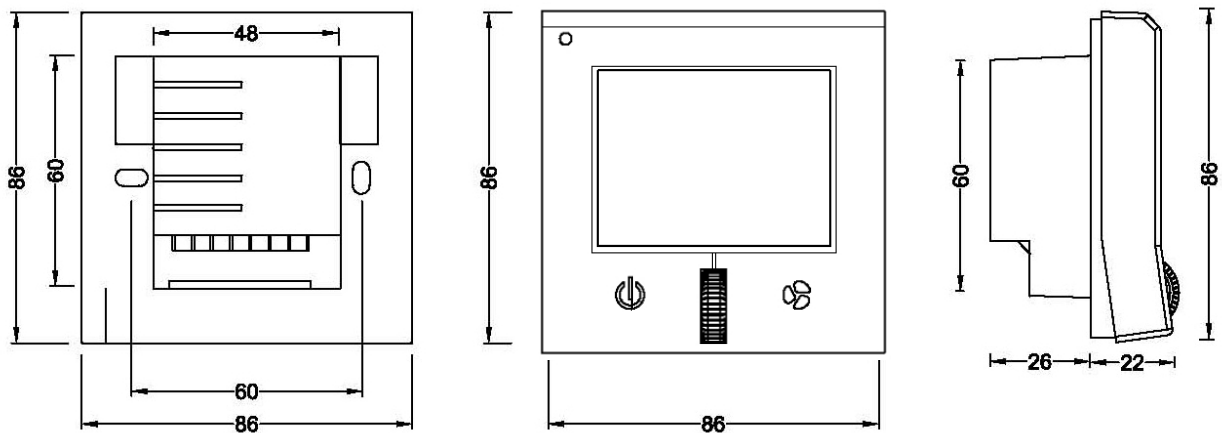
LCD Segments and Buttons



Operation Notes

Temperature Display	LCD shows measured temperature constantly except when temperature set point adjustment is being made
Backlight	The backlight will light up for 5 seconds when any button is pressed
Mode of operation	Press the system control key to enter into the desired operating mode: Cooling-Heating-Auto-Fan Only-Off
Fan speed	Press the fan control key to change the fan speed mode: High-Med-Low-Auto
Temperature Set-point	Increase or decrease temperature set point by rotating the scroll-wheel clockwise or counter-clockwise. When the dial is rotated, the LCD shows the set point temperature
Unoccupied Mode (Energy-saving)	The energy saving mode is activated while "OCU" contact is in closure. In unoccupied mode, the factory temperature set points are 26 °C and 16 °C for cooling and heating respectively. Fan speed is always set at "low".
Parameter setup menu	The thermostat allows authorized service agents to change certain number of operating parameters, please refer to parameter setup manual for details.

Dimensions in mm

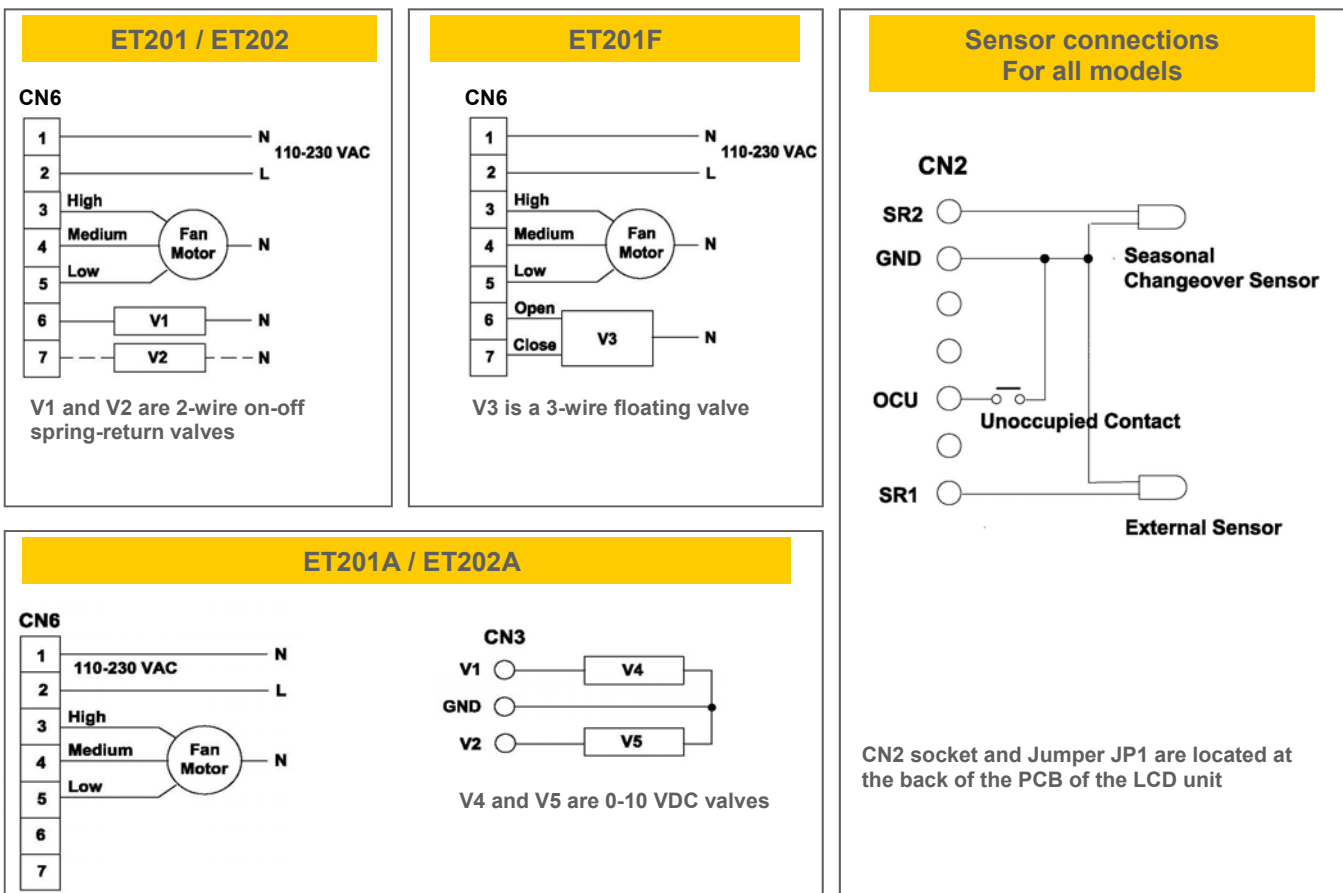


Wiring Diagrams and Application Notes

- Cut jumper JP1 open if an external sensor is wired to SR1 and GND. Run the wiring away from any electrical motors or power wiring. Failure to do so may result in poor thermostat performance due to electrical noise.
- 22 or 24 AWG twisted shielded pair double-insulated cable is recommended as remote sensor wiring and its length must not exceed 25 m.
- Do not bundle and run power wiring and remote sensor wiring in the same conduit.
- The seasonal changeover sensor should be wrapped around the supply water pipe when associated with a water system. When the changeover sensor temperature exceeds 30 °C, the thermostat enters into heating mode.
- External seasonal changeover sensor or switch is applicable to heating only or cooling only 2-pipe models only.
- OCU contact closure activates unoccupied mode.
- The thermostat 2-wire and 3-wire valve control outputs are designed for controlling zone valves. If used for controlling electric heaters, external contactors must be used.
- Hidden-line wiring for Terminal 7 of CN6 are applicable to dual-output model and 3-wire model only.
- On a single-output unit, V1 can be either a 2-wire spring-return cooling or heating valve.
- On a dual-output unit, V1 must be a 2-wire spring-return cooling valve and V2 a 2-wire spring-return heating valve.
- For a 3-wire floating output model set in cooling mode, Terminal 6 of CN6 is wired to open valve on temperature rise and Terminal 7 of CN6 to close valve on temperature drop. The action in heating mode is reversed.
- On a single-output unit, V4 can be either a 0-10 VDC cooling or heating valve.
- On a dual-output unit, V4 must be a 0-10 VDC cooling valve and V5 a 0-10 VDC heating valve.
- JP4 is available for 0-10 VDC models. Cut it if 2-10 VDC control signal is required.
- It's recommended to set the P-band to 1K and I-time to 0 min if the ET201F is used for on-off output.

WARNING

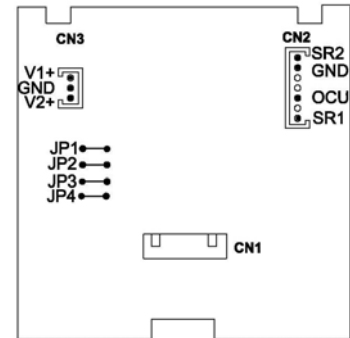
Incorrect wiring connection may cause permanent equipment damages to the thermostat.



Jumper settings

ET202 and ET202A can be re-configured in the field to various model numbers by a qualified servicing agent, if necessary, by resetting the jumper positions of JP2 and JP3. The locations of these jumpers will be found after removing the thermostat cover from its baseplate.

Model Number	Jumper Settings	
	JP2	JP3
ET202	Uncut	Uncut
ET202A	Uncut	Uncut
ET201F	Cut	Uncut
ET201	Cut	Cut
ET201A	Cut	Cut



Technical Specifications

Product Model	See ET200 Series Model Number Selection Guide
Power Requirements	100...250 V, 50/60 Hz
Operating Temperature Differential (for 2-Wire On-Off Models)	Fixed at 1 K for both cooling and heating modes
Temperature Display Range	5-35°C in 0.5 K increments; accuracy ±1 K (41-95°F in 0.5 R increments, accuracy ±1 R)
Temperature Set Point Range	5-35°C in 0.5 K increments, initial factory setting at 22°C (41-95°F in 0.5 R increments)
Deadband of Dual-Output Models	3 K (Adjustable 1 to 5 K in setup menu)
Auto Fan Temperature Differential	At 2 K (2 R) increments. At ≥0 K, fan is on low speed in cooling mode and fan status in heating mode depends on auto fan action selection setting.
Sensing Element	NTC thermistor, 10 kΩ@25°C; accuracy ±0.5 K@25°C
Unoccupied Mode	Input signal from external voltage-free contact
Body Material	Self-extinguishing, molded ABS
Finish	Off white body / grey face plate (white face plate is available up on request)
Electrical Ratings	2-wire and 3-wire models Valve output relays 100-250 V, 3 A resistive, 1 A inductive, 50/60 Hz Fan output relays 100-250 V, 3 A resistive, 1 A inductive, 50/60 Hz Total rating 100-250 V, 5 A maximum, 50/60 Hz 0-10 VDC models Valve output impedance Minimum 10,000 Ω Fan output relays 100-250 V, 5 A resistive, 2 A inductive, 50/60 Hz Total rating 100-250 V, 5 A maximum, 50/60 Hz
Ambient/Storage Temperature Limits	0 to 50 °C / -30 to 50 °C, 10% to 90% RH non-condensing
Connections	Non-removable terminal blocks
Power Wires	Wire size 1 mm ² or 18 AWG solid copper recommended
Sensor Wires	22 AWG twisted shielded pair double-insulated cable
Agency Approval	CE Mark compliant to EMC and low voltage directives
Shipping Weight	350 g
Dimensions	See Dimensions drawing in mm

The specification above are normal and conform to generally acceptable industry standard. Cyrus is not responsible for damages resulting from misapplication or misuse of its products.