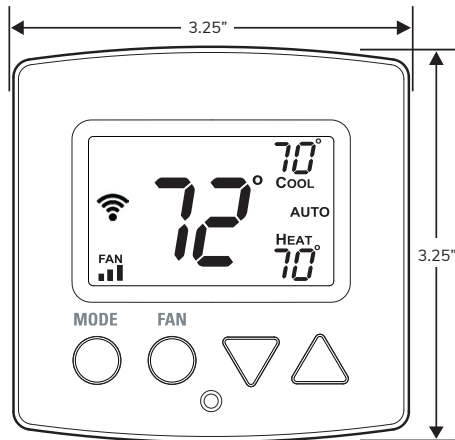# Venture Wi-Fi Thermostat
Programmable

Part Numbers: E055-71520330 with logo
E055-71520325 without logo

Features:

- 2- or 4-pipe systems
- Wi-Fi enabled
- Skyport web and mobile app for easy remote control
- Switchable non-programmable or 7-day programmable
- 3 speed fan control
- Retrofit application
- Auto-changeover
- Dry Contact for condensate overflow or occupancy sensor
- Dehumidification option
- Setpoint limiting and/or total keypad lockout
- Override capable

Specifications:

Recommended Wiring	22 AWG (36 ft max) 18 AWG (100 ft max)
Operating Temperature F° (C°)	35° to 104° (2° to 40°)
Storage Temperature F° (C°)	-22° to 122° (-30° to 50°)
Operating Relative Humidity	0 to 95% (non-condensing)
Dimensions (In.)	3.25 x 3.25 x 1.13
Power	5 va at 24 vac, 60 Hz
Connectivity	2.4 GHz b/g/n Wi-Fi radio

AWG - American Wire Gage

Features and Benefits:

IEC's line of commercial programmable low-voltage fan coil thermostats maintain room temperatures by controlling the operation of 2- or 4-pipe fan coil systems. These thermostats have separate heating and cooling set points with auto-changeover as standard features.

The thermostat has 3-speed fan operation capability and the option to show single or dual set points. Programming of up to 3 occupied and 1 unoccupied time/temperature settings is allowed. Batteries are not required. During power interruption, the internal memory stores schedules for an unlimited time while the clock will continue to run for at least 48 hours.

Utilize the IEC Skyport Web App (**iec.skyportcloud.com**) to remotely control, configure, and customize each thermostat.

Year-round comfort is assured:

One-degree control accuracy precisely monitors the desired space temperature to within 1 degree of user set point by using a solid-state, laser-trimmed sensor.

Heating and cooling LED operation glows red when unit is in the Heating mode and green when unit is in the Cooling mode.

Easy programming for quick operation:

Utilize the IEC Configurator App to establish a Wi-Fi connection and create system profiles for quick thermostat configuration.

Once connected to Wi-Fi and added to the IEC Skyport Web App (iec.skyportcloud.com), easily customize the thermostat's name, settings, schedule, and more.

The backlit display is large and easy to read. The backlight feature can be configured for either button activation or continuous lighting. Also simple adjustments will display room temperatures in either Celsius or Fahrenheit, time of day, or temperature and set points.

Four time periods per day allow flexibility to create schedules for every application. Start and stop times along with heating and cooling set points are easily entered into the schedule.

Agency Approvals:

Complies with FCC Part 15 rules. Thermostat does not cause harmful interference and accepts all interference received.

UL and UL, Canada approval. These thermostats are considered low voltage devices by UL and do not require UL approval. As an added assurance to the quality of the thermostats, these thermostats are UL listed.

Title 24 compliance. Meets specified requirements of programming capability for all California commercial installations.

Open ADR 2.0

System Description:

Wi-Fi enabled, 24 V programmable, 2- or 4-pipe (or electric heat), room fan coil unit controller with digital display.

Quality Assurance:

Unit shall be tested and certified in accordance with FCC Part 15 for RF interference, is UL and UL Canada certified, meets European Community standards and meets specified programming capability requirements for all California commercial installations.

Delivery, Storage and Handling:

Each unit shall be individually packaged from point of manufacture and shall be handled and stored in accordance with manufacturer's instructions.

Standard Equipment Features:

General:
The low-voltage, 7-day programmable digital thermostat shall be capable of maintaining room temperature by controlling operation of an HVAC system.

Mounting:
Thermostat can be wall-mounted, surface mounted, or unit mounted.

Standard Features:
Thermostat shall allow separate heating and cooling set points and auto-changeover as standard.

Configurations:
The thermostat shall accept several different equipment configurations/applications including single-stage heating and cooling, two stages of cooling, or electric heating and hydronic fan coil systems.

Power:
Batteries shall not be required. During power interruption, the internal memory shall store user-defined default settings as well as the user's comfort programming and configuration. Clock and day of the week settings shall be retained for a minimum of 48 hours.

Display:
The backlit thermostat display shall be large and easy to read with a single adjustment to show temperature in Celsius or Fahrenheit.

Settings:
- Thermostat shall have a solid-state, laser-trimmed sensor with one-degree control accuracy to precisely control the desired space temperature to within 1 degree of user set point.
- The thermostat shall have an auto-changeover with adjustable deadband to enable the user to choose separate heating and cooling set points (35°F to 99°F). This adjustable deadband shall be configurable to user's specifications (from 1° to 6°F) and in cycles per hour (2 to 6).

Other Features:
- For safety purposes, the front panel buttons shall be capable of being disabled to prevent unauthorized use of the thermostat.

Optional Features:
- Mounting plate and cover plate to allow thermostat to be mounted directly to wall or to standard 2" x 4" or 4" x 4" junction box.

Schedules:
- The thermostat shall have a 7 day clock provided with 3 occupied and 1 unoccupied time periods for scheduling of heating and cooling set points.
- A maximum of four-hour setback override shall return the system to occupied set points if heating or cooling is needed during unoccupied hours. The override shall be adjustable in 30-minute increments and return the system to unoccupied mode when override expires.

Sequence of Operation

Four-Pipe Operation:
- The Mode button selects the operating mode of the thermostat. If Off is selected, the thermostat will not enter Heating or Cooling mode. If Heat is selected, the thermostat will only enter Heating mode (if the room temperature is below the heating set point). If Cool is selected, the thermostat will only enter Cooling mode (if the room temperature is above the cooling set point). If Auto is selected, the thermostat will enter Heating or Cooling mode based on the room's temperature and the heating and cooling set points.

Two-Pipe Operation:
- Heat Only – When the thermostat is configured for Heat Only operation, only the Heat and Off modes can be selected.
- Cool Only – When the thermostat is configured for Cool Only operation, only the Cool and Off modes can be selected.
- Heat/Cool with Changeover Sensor – When the thermostat is configured for operation with a changeover sensor, all the modes are available for operation. If the water temperature is changed during the year, the thermostat will automatically lock out the incorrect mode. Heat or Cool modes may not be available, depending on water temperature.

Total or Auxiliary Electric Heat:
The Mode button selects the operating mode of the thermostat. If Off is selected, the thermostat will not enter Heating or Cooling mode. If Heat is selected, the thermostat will only enter Heating mode (if room temperature is below the heating set point). For total electric heat, a call for heat will enable the electric heater. For auxiliary electric heat, a call for heat will either enable the electric heater (if chilled water is in the coil), or open the coil valve (if hot water is in the coil). If Cool is selected, the thermostat will only enter Cooling mode (if room temperature is above the cooling set point and chilled water is in the coil). If Auto is selected, the thermostat will enter Heating or Cooling mode based on the room's temperature and the heating and cooling set points.

Auto Changeover:
When the thermostat mode is set to Auto, the thermostat will provide automatic changeover from Heating or Cooling mode and Cooling to Heating mode when required. The thermostat will automatically switch to maintain the desired temperature setting. The thermostat does not need to be manually changed from heating to cooling or cooling to heating operation.

Fan Operation Options:
When only the Fan is in "Auto" mode, it will run continuously (unless continuous low speed fan is set to Off or thermostat is in unoccupied mode and heating or cooling are not active). The thermostat will increase or decrease the fan speed based on load conditions. Fan operation may also be set to always run at Low, Medium, or High speeds.

Dry Contact Switch/External Control:
- A dry contact switch is provided to allow an external device to force the thermostat into the unoccupied set points configured by the installer. When the thermostat is forced into unoccupied set points via the dry contact closure, the unoccupied icon will blink each second.
- In some applications, the dry contact switch may be configured to disable the fan, heating, and cooling from a condensate switch. If the condensate switch activates the dry contact, the fan coil unit will be deactivated instead of controlling to the unoccupied set points.

Return Sensor:
Thermostat shall display return air temperature (if optional return air sensor is wired to thermostat).