

### BACiQ-FC/AC-W Features

- Wi-Fi BACnet IP open protocol communication
- IEEE 802.11 b/g
- Web Server based Configuration to configure Wi-Fi parameters
- Suitable for 2-pipe or 4-pipe Fan-coil HVAC system of On/Off controls.
- The 1- to 3-fan speed can be operated in the mode of auto changeover or manual selected continuous mode.
- Room temperature or setpoint temperature selectable for normal display
- Cool, heat, or both auto/ manual changeover with adjustable zero energy band
- Full configurable parameters such as switching differential, cycle time, and etc.
- Proportional plus integral (PI) algorithm applied to on/off control
- Optional Remote sensor (RS) input interface for connecting to remote temperature sensor
- Optional Energy Saving input (ESI) interface for connecting to hotel card key , occupied/unoccupied sensor or lighting interlock signal
- Optional extra digital input (DI) interface for connecting to hotel window/door open detection contact for energy saving control
- Adjustable unoccupied setpoints for energy saving
- Optional settable countdown Timer (0 to 24 hours) function to stop control output when time expires
- Optional sleep mode function for raising temperature setpoint in 2 hours when enable
- Non-volatile memory (EEPROM) retains user settings during power loss
- Each button and Energy Saving lockable

The BACiQ-FC/AC-W series are full configurable, Wi-Fi BACnet IP open protocol networked digital thermostats. They are suitable for 2-pipe or 4-pipe Fan-coil HVAC system of on/off controls.

The thermostat measures temperature of a room space and then use relays to act as switches to control single-stage cooling/ heating devices and blower fan in the HVAC system to maintain the room space near a desired temperature set point. The 1- or 3-fan speed can be operated in the mode of auto changeover or manual selected continuous mode.

This series has a big LCD screen showing room temperature or set point, and related status. And it also has optional digital inputs for detection devices such as room occupied/unoccupied detector to enhance energy savings.



**Supply Voltage:**

24Vac (+/-10%), 50/60 Hz

**Power Consumption:** 5 VA

**Wi-Fi BACnet IP Communications:**

Wi-Fi (2.4GHz, IEEE802.11b/g),  
WPA2-PSK(AES) secure Wi-Fi authentication,  
Configuration Web Server to configure Wi-Fi  
module via smart phone, pad, and notebook.  
Support DHCP and IPv4  
Associate Wi-Fi Access Point (AP) automatically  
BACnet IP server open protocol

**Display Range:**

-30 to 100.0 °C (-22.0 to 212.0 °F) with suitable  
sensor

**Display Temperature Unit and Resolution:**

0.1 °C/°F

**Indication Accuracy :**

+/-1.0 °C (0.9 °F) at 25 °C and output off

**Set-point Range:**

0~50 °C / 32~122 °F (default: 10~30 °C /50~86 °F,  
adjustable), 0.5 °C/°F per setting step

**Setpoint Adjust:**

By up and down arrows buttons or communication

**Relay Output for On/Off valve/actuator Control:**

1 SPST or SPDT relay for 2-pipe cooling/heating  
control  
2 SPST or 1SPDT with 1 SPST relays for 4-pipe  
cooling/heating control

**Relay Output for Fan Control:**

Up to 3 SPST relays for 1- or 3-Fan speed control

**Relay Output for Interlock Control:**

1 SPST relay for Interlock control

**Electrical Rating:**

SPDT relay -- 1.2A/ 250Vac, inductive load  
SPST relay -- 2A/ 250Vac, inductive load

**Remote Sensor ( RS ) Input Interface:**

For connecting to external NTC Thermistor 3K ohm

**Energy Savings Input ( ESI ) Interface:**

For saving energy by entering into unoccupied mode when ESI is  
triggered by Normally open (N.O.) or normally close (N.C.) dry  
contact

**Extra Digital Input ( DI ) Interface:**

For saving energy by stop cooling/heating and Fan control outputs  
when DI is triggered by Normally open (N.O.) or normally close  
(N.C.) dry contact

**Control Performance:**

Proportional plus integral (PI) applied to differential on/off control

**Countdown timer Function (optional):**

1~24 hours settable countdown timer to turn off control outputs  
when enable

**Sleep mode Function (optional):**

For raising 2 °C set-point temperature automatically in 2 hours (0.5  
°C per 30 minutes) if enable this mode.

**Operating Environment:**

0 ~ 50°C, 5 ~ 95% RH (non-condensing)

**Wiring:**

Up to 15 or 18 Screw-in terminals, each terminal capable of  
accepting 14 to 22 AWG wires or 1.5 mm<sup>2</sup> wires

**Dimensions:**

94×118×34 mm (W × H × D)

**Mounting:**

Mounts directly onto wall, panel, standard 65×65 mm junction box  
(hole pitch 60 mm) or standard 2×4 inch vertical junction box (hole  
pitch 83.5 mm)

How to Order:	Order Number
BACiQ-FC/AC (wireless model)	BACiQ-FC/AC-W