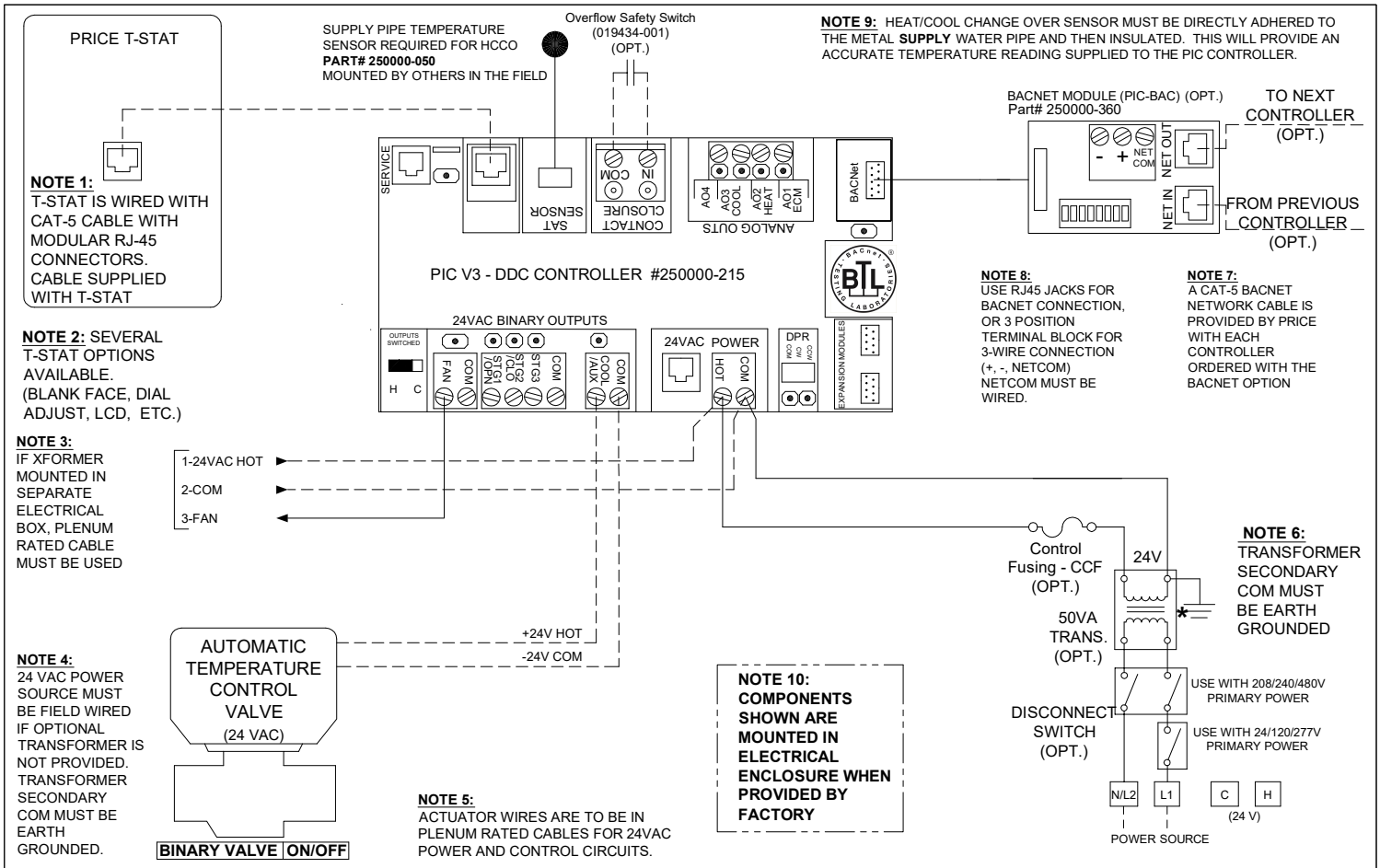
BLOWER COIL DIGITAL CONTROLS

Control Sequence Number 9120

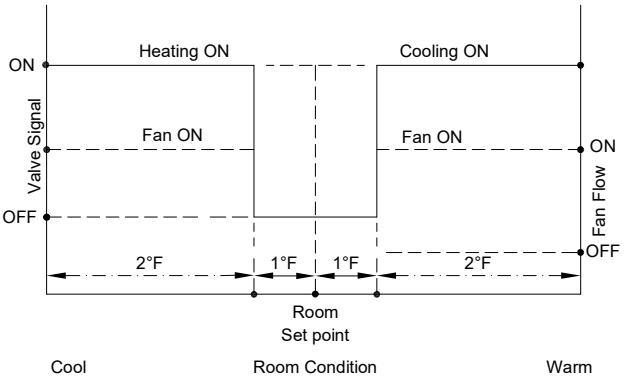


LEGEND

FACTORY ELECTRICAL WIRING

FIELD ELECTRICAL WIRING

CONTROL GRAPH



Sequence of Operation -- On/Off Fan, On/Off Heating or Cooling with Heat/Cool Changeover

If no HCCO sensor is present, the controller assumes chilled water supply at all times

Chilled Water Supply: On an increase in space temperature the controller opens the valve and turns on the fan motor.

Hot Water Supply: On a decrease in space temperature the controller opens the valve and turns on the fan motor.

Dead Band: With no demand in the space, the water valve actuator remains closed. Fan Flow remains off.

*If valve has been closed for 10 hours (adjustable) it will be opened for a maximum of 5 minutes to determine if water supply temperature has changed.

PROJECT:		
ENGINEER:		**FAN/BLOWER COIL CONTROLS PIC-FC** ON/OFF MOTOR 2-PIPE ON/OFF HCCO OR COOLING ONLY WITH CHANGEOVER
CUSTOMER:	259533	
SUBMITTAL DATE: **SPEC. SYMBOL:**	2020/06/17	

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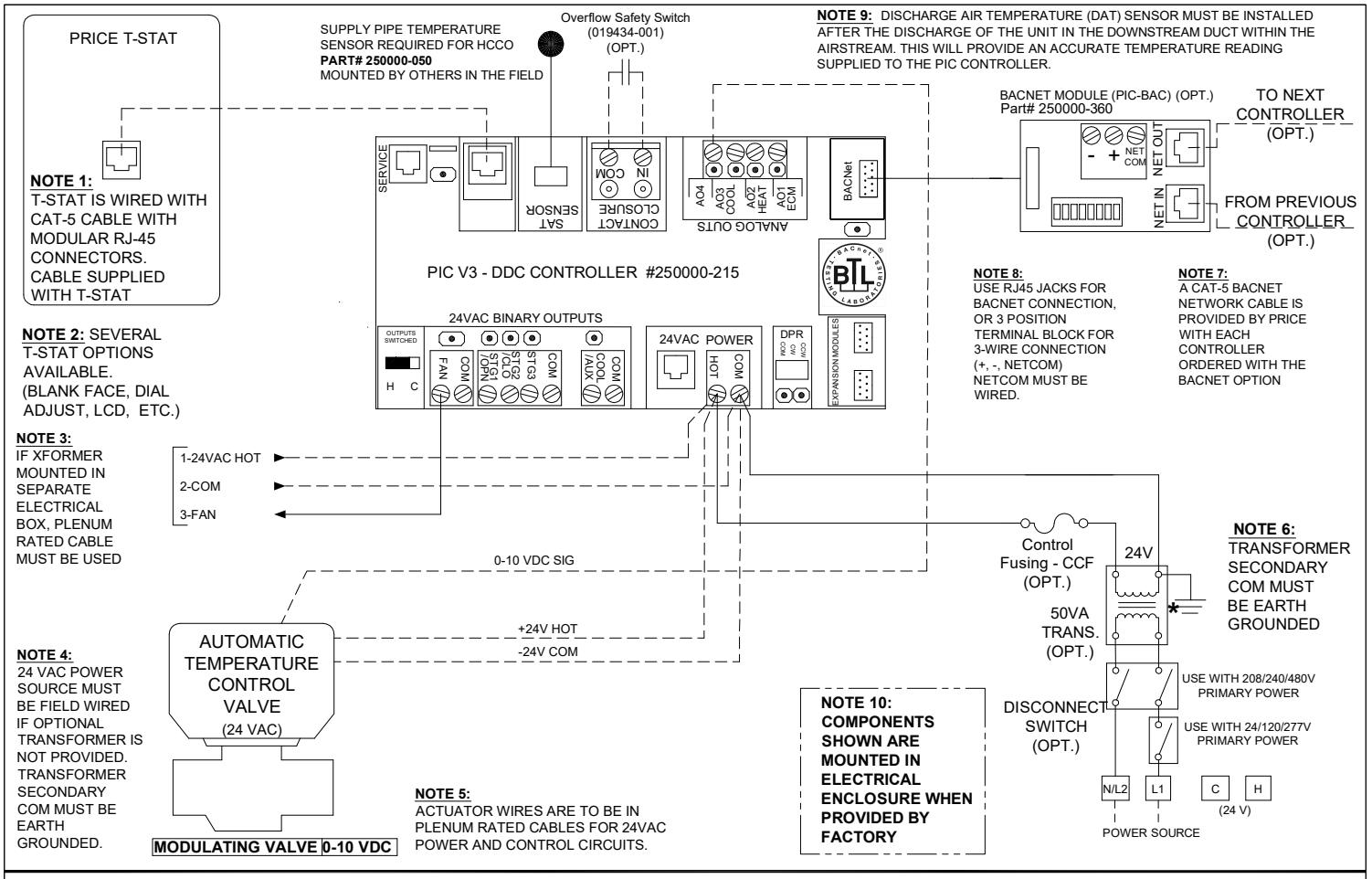
REV C

BLOWER COIL DIGITAL CONTROLS

Control Sequence Number 9121

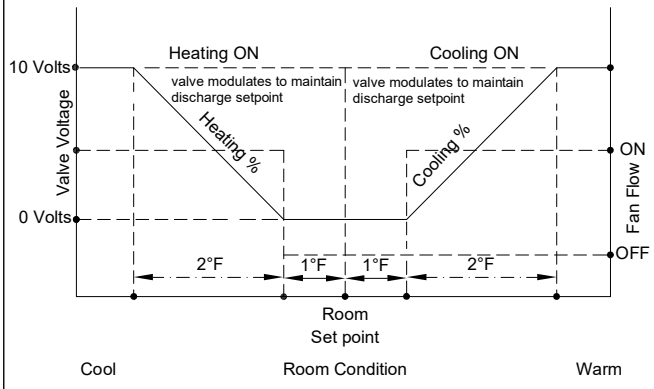


LEGEND

FACTORY ELECTRICAL WIRING

FIELD ELECTRICAL WIRING

CONTROL GRAPH



Sequence of Operation -- On/Off Fan, Modulationg Heating or Cooling with Discharge Air Temperature Control

Chilled Water Supply: On an increase in space temperature above the set point, the controller energizes the fan motor and modulates the valve to maintain a 55°F (adjustable) discharge air temperature.

Hot Water Supply: On a decrease in space temperature below the set point, the controller energizes the fan motor and modulates the valve to maintain a 90°F (adjustable) discharge air temperature.

Dead Band: With no demand in the space, the water valve actuator remains closed. Fan remains OFF.

Discharge Air Temperature (DAT) Sensor and Control: The sensor provides the controller with the discharge air temperature reading. This temperature is used to control the modulating valves while trying to achieve a set discharge temperature. Note: Discharge Air Temperature Control is only possible with modulating valves. The DAT is also used to determine the water temp (Hot/Cold).

*If valve has been closed for 10 hours (adjustable) it will be opened for a maximum of 5 minutes to determine if water supply temperature has changed.

PROJECT:		
ENGINEER:		**FAN/BLOWER COIL CONTROLS PIC-FC** ON/OFF MOTOR 2-PIPE 0-10VDC HEATING OR COOLING W/ DAT CONTROL & CHANGEOVER
CUSTOMER:	259534	
SUBMITTAL DATE:	**SPEC. SYMBOL:** 2020/06/17	

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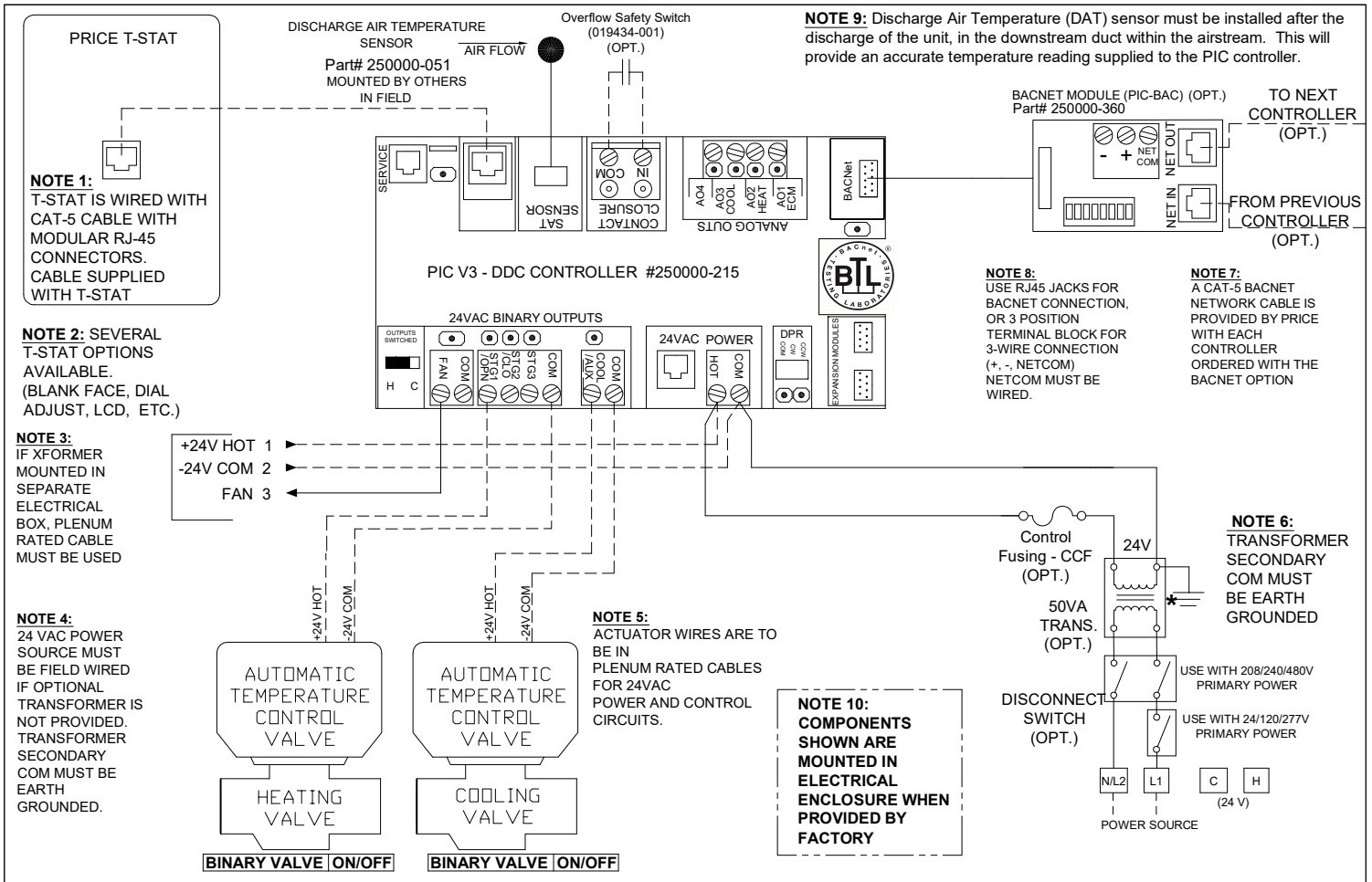
REV C

BLOWER COIL DIGITAL CONTROLS

Control Sequence Number 9160

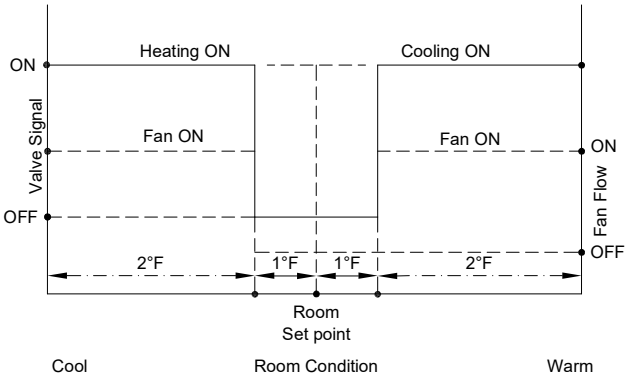


LEGEND

FACTORY ELECTRICAL WIRING

FIELD ELECTRICAL WIRING

CONTROL GRAPH



Sequence of Operation -- On/Off Fan, On/Off Heating and Cooling with Discharge Air Temperature Sensor Monitoring

Cooling: On an increase in space temperature above the set point, the controller opens the chilled water valve and energizes the fan motor.

Dead Band: With no demand in the space, the water valve actuator remains closed. Fan Flow remains OFF.

Heating: On a decrease in space temperature below the set point, the controller opens the hot water valve and energizes the fan motor.

Discharge Air Temperature (DAT) Sensor: The sensor provides a discharge temperature reading to the thermostat. This temperature can only be read through the interface program for trouble shooting.

PROJECT:		
ENGINEER:		**FAN/BLOWER COIL CONTROLS PIC-FC** ON/OFF MOTOR 4-PIPE ON/OFF HEATING & COOLING WITH DAT FOR MONITORING
CUSTOMER:	259535	
SUBMITTAL DATE:	**SPEC. SYMBOL:**	2020/06/19

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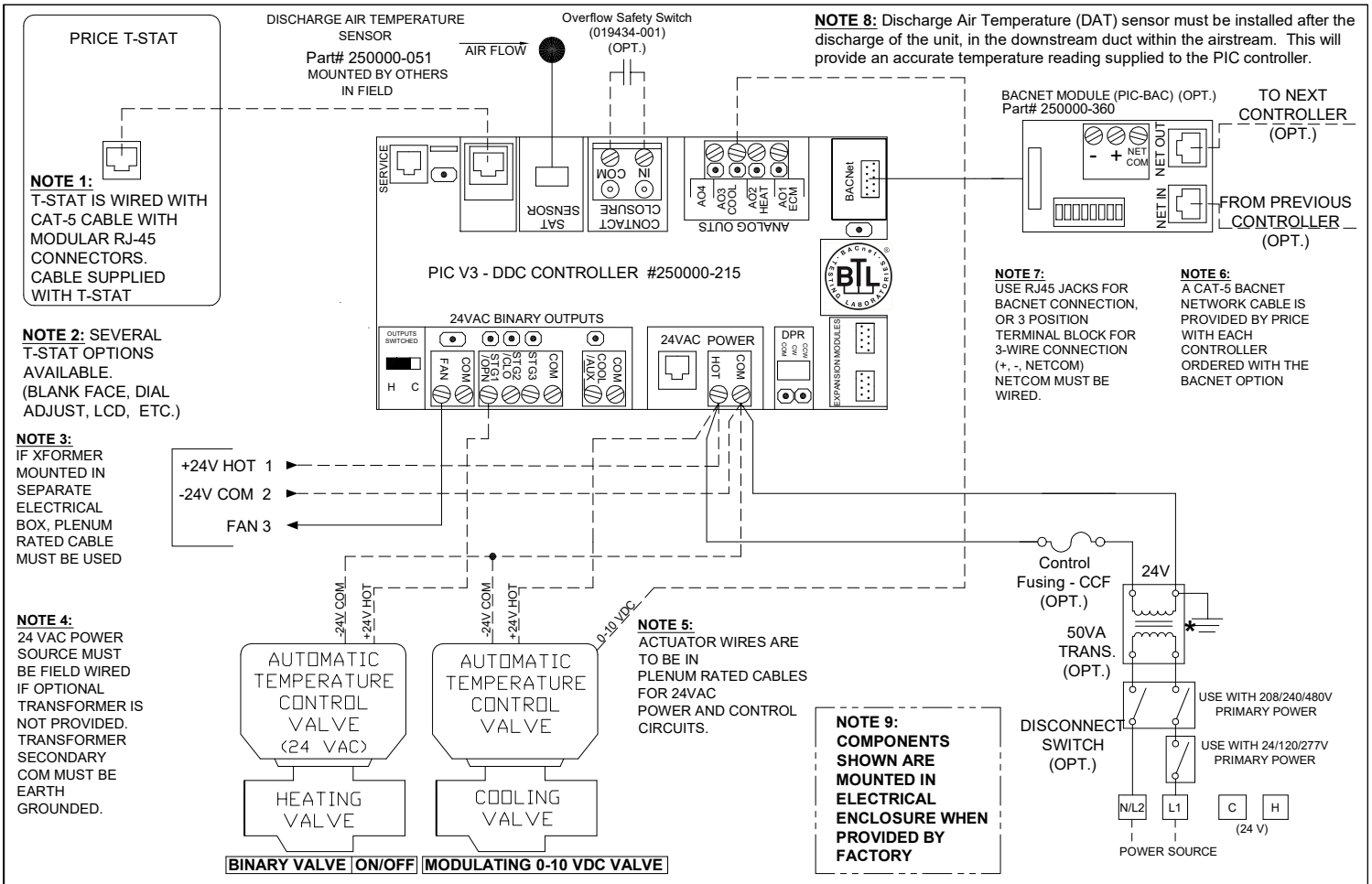
REV C

BLOWER COIL DIGITAL CONTROLS

Control Sequence Number 9161

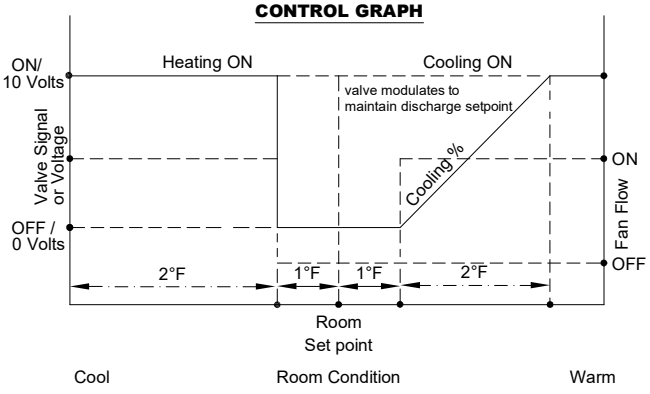


LEGEND

FACTORY ELECTRICAL WIRING

FIELD ELECTRICAL WIRING

CONTROL GRAPH



Note: Price only recommends modulating chilled water valves when the sequence maintains a constant discharge temperature to ensure part load space humidity is controlled.

Sequence of Operation -- On/Off Fan, On/Off Heating & Modulating Cooling with Cooling Discharge Air Temperature Control

Cooling: On an increase in space temperature above the set point, the controller energizes the fan motor and modulates the chilled water valve to maintain a 55°F (adjustable) discharge air temperature.

Dead Band: With no demand in the space, the water valve actuators remain closed. Fan Flow remains OFF.

Heating: On a decrease in space temperature below the set point, the controller opens the hot water valve and energizes the fan motor.

Discharge Air Temperature (DAT) Sensor and Control: The sensor provides the controller with the discharge air temperature reading. This temperature is used to control the modulating cooling valve to achieve a set discharge temperature. Note: Discharge Air Temperature Control is only possible with modulating valves.

PROJECT:		
ENGINEER:		**FAN/BLOWER COIL CONTROLS PIC-FC** ON/OFF MOTOR 4-PIPE ON/OFF HEATING & 0-10VDC COOLING WITH COOLING DAT CONTROL
CUSTOMER:	259536	
SUBMITTAL DATE:	**SPEC. SYMBOL:**	2020/06/19

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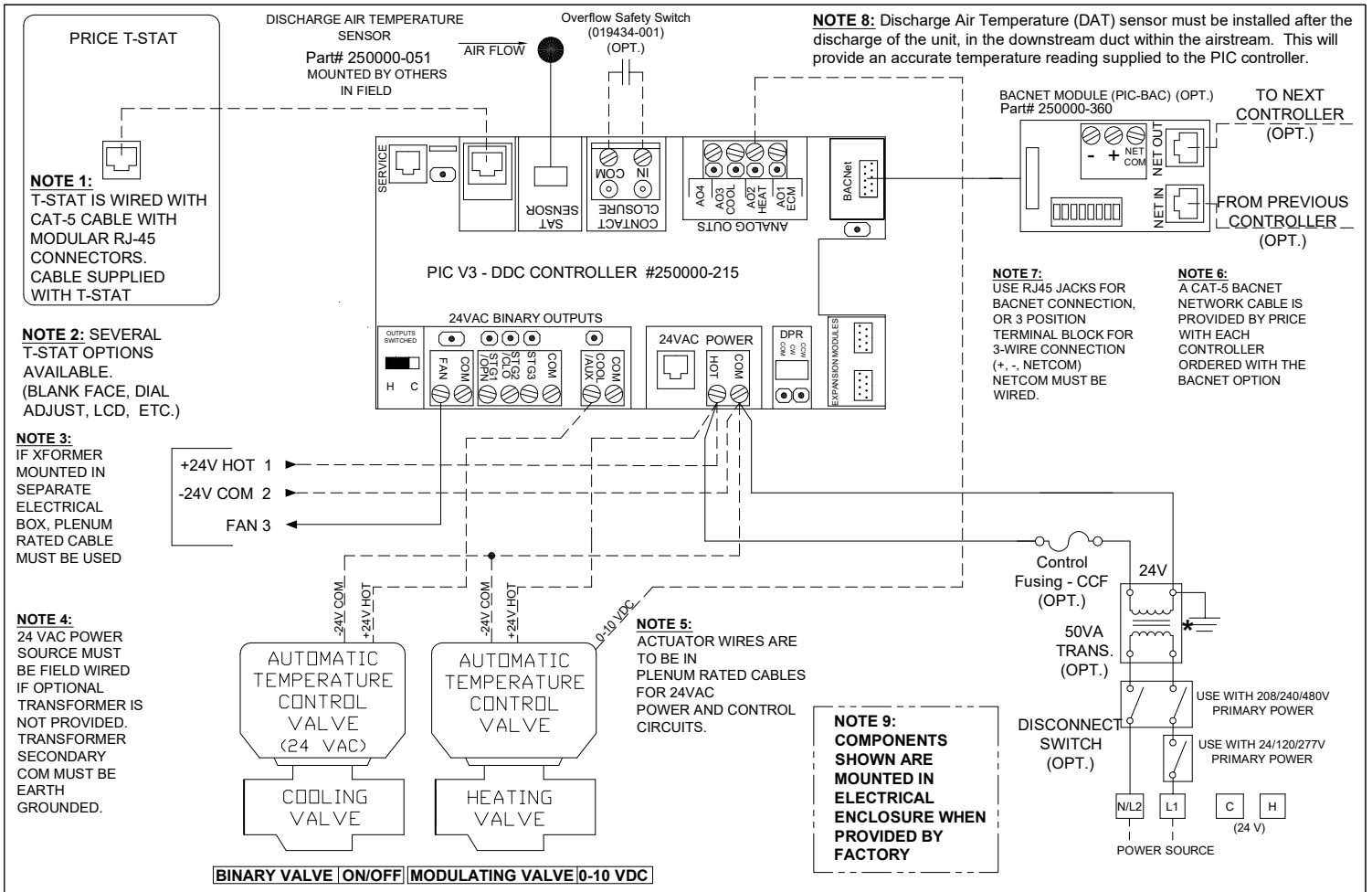
REV B

BLOWER COIL DIGITAL CONTROLS

Control Sequence Number 9162

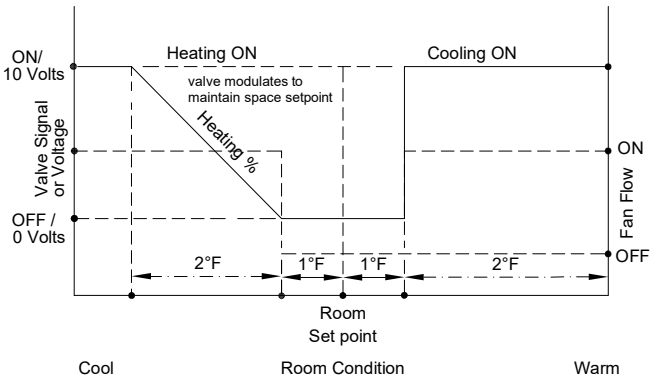


LEGEND

FACTORY ELECTRICAL WIRING

FIELD ELECTRICAL WIRING

CONTROL GRAPH



Sequence of Operation -- On/Off Fan, Modulating Heating & ON/OFF Cooling with Heating Discharge Air Temperature Control

Cooling: On an increase in space temperature above the set point, the controller opens the chilled water valve and energizes the fan motor.

Dead Band: With no demand in the space, the water valve actuators remain closed. Fan Flow remains OFF.

Heating: On a decrease in space temperature below the set point, the controller energizes the fan motor and modulates the hot water valve to maintain a 90°F (adjustable) discharge air temperature.

Discharge Air Temperature (DAT) Sensor and Control: The sensor provides the controller with the discharge air temperature reading. This temperature is used to control the modulating heating valve while trying to achieve a set discharge temperature. Note: Discharge Air Temperature Control is only possible with modulating valves.

PROJECT:		
ENGINEER:		**FAN/BLOWER COIL CONTROLS PIC-FC** ON/OFF FAN 4-PIPE 0-10VDC HEATING & ON/OFF COOLING WITH DAT HEATING CONTROL
CUSTOMER:	259537	
SUBMITTAL DATE:	**SPEC. SYMBOL:**	2020/06/22

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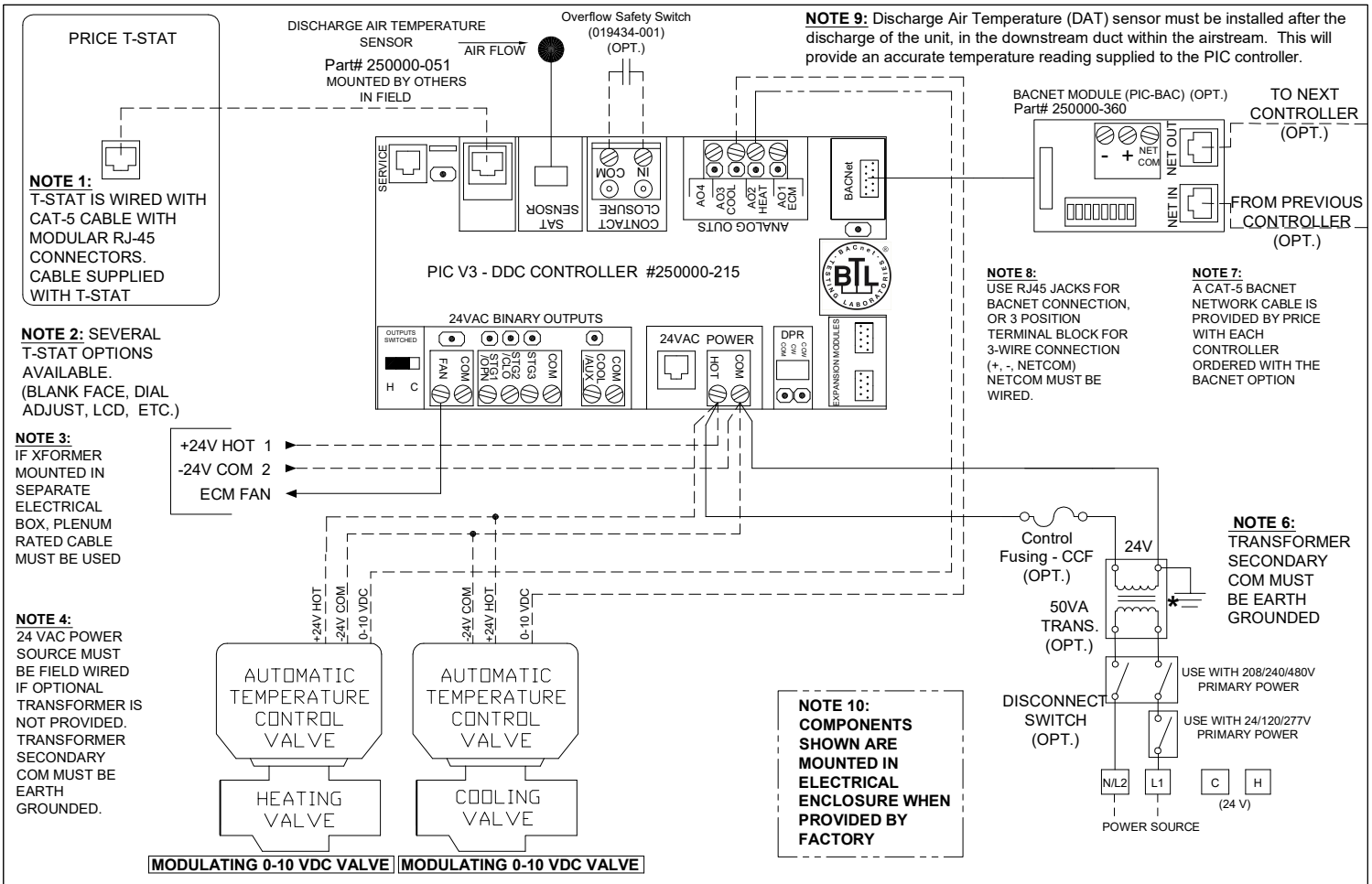
REV C

BLOWER COIL DIGITAL CONTROLS

Control Sequence Number 9163

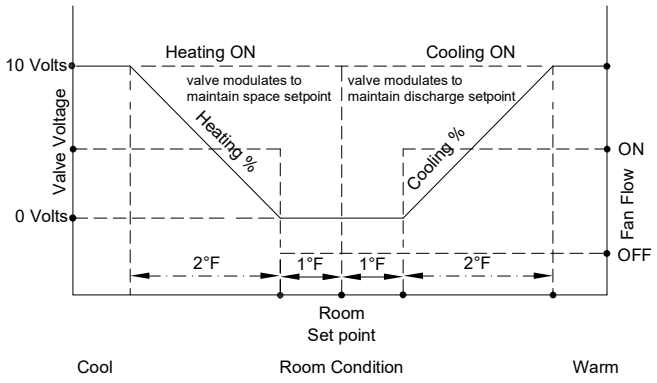


LEGEND

FACTORY ELECTRICAL WIRING

FIELD ELECTRICAL WIRING

CONTROL GRAPH



Note: Price only recommends modulating chilled water valves when the sequence maintains a constant discharge temperature to ensure part load space humidity is controlled.

Sequence of Operation -- On/Off Fan, Modulating Heating & Modulating Cooling with Discharge Air Temperature Control

Cooling: On an increase in space temperature above the set point, the controller energizes the fan motor and modulates the chilled water valve to maintain a 55°F (adjustable) discharge air temperature.

Dead Band: With no demand in the space, the water valve actuator remains closed. Fan Flow remains OFF.

Heating: On a decrease in space temperature below the set point, the controller energizes the fan motor and modulates the hot water valve to maintain a 90°F (adjustable) discharge air temperature.

Discharge Air Temperature (DAT) Sensor and Control: The sensor provides the controller with the discharge air temperature reading. This temperature is used to control the modulating valves while trying to achieve a set discharge temperature. Note: Discharge Air Temperature Control is only possible with modulating valves.

PROJECT:		
ENGINEER:		**FAN/BLOWER COIL CONTROLS PIC-FC** ON/OFF FAN 4-PIPE 0-10VDC HEATING & 0-10VDC COOLING WITH DAT CONTROL
CUSTOMER:	259538	
SUBMITTAL DATE:	**SPEC. SYMBOL:**	2020/06/22

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REV C