

NOTE 1:
T-STAT IS WIRED WITH CAT-5 CABLE WITH MODULAR RJ-45 CONNECTORS. CABLE SUPPLIED WITH T-STAT

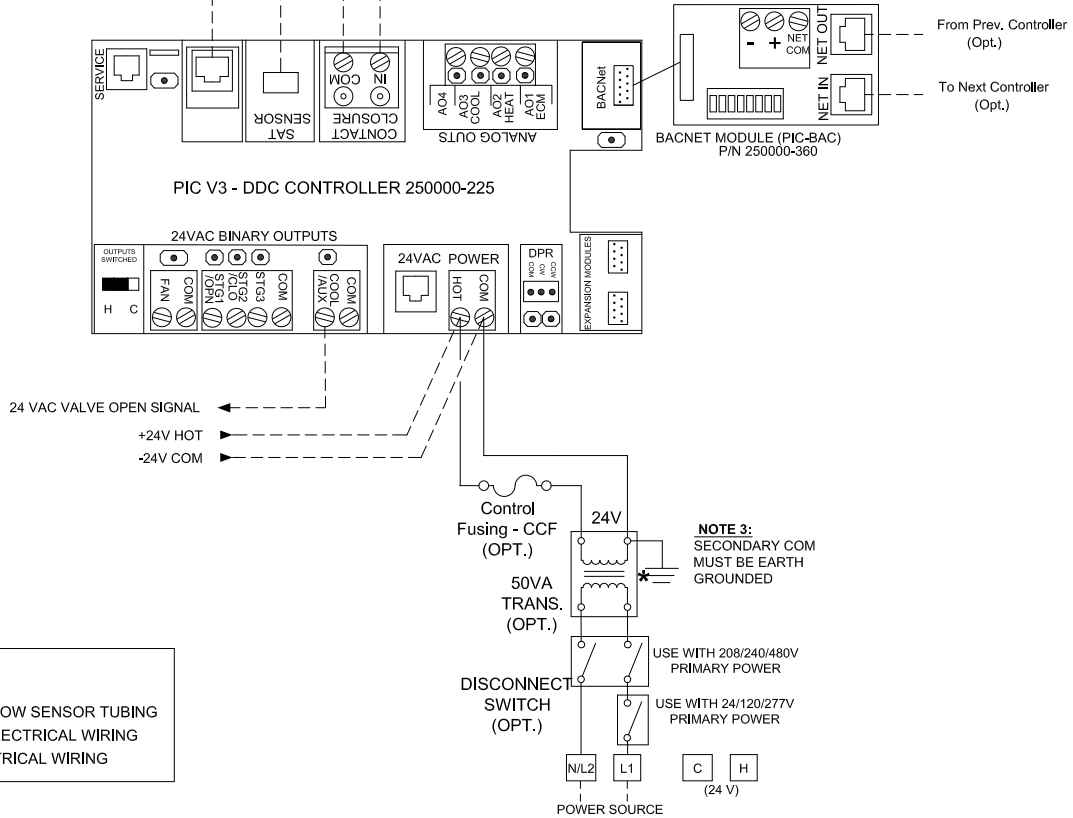
NOTE 2: SEVERAL T-STAT OPTIONS AVAILABLE. (BLANK FACE, DIAL ADJUST, LCD WIRELESS BASE, ETC.)

NOTE 6:
TEMPERATURE SENSOR PROBE P/N 250000-050 TO BE MOUNTED TO SYSTEM SUPPLY PIPE FOR WATER TEMPERATURE MONITORING (REQUIRED FOR HCCO)

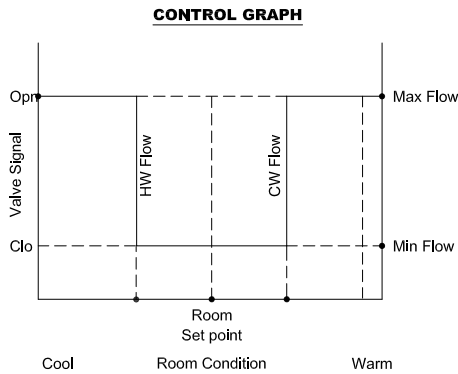
TO CONDENSATE SENSOR OR WINDOW SWITCH BY OTHERS

NOTE 5:
A CAT-5 BACNET NETWORK CABLE IS PROVIDED BY PRICE WITH EACH CONTROLLER ORDERED WITH THE BACNET OPTION

NOTE 4:
USE RJ45 JACKS FOR BACNET CONNECTION, OR 3 POSITION TERMINAL BLOCK FOR 3-WIRE CONNECTION (+, -, NETCOM) NETCOM MUST BE WIRED.



Sequence of Operation -- 2 pipe binary water valve control with HCCO



Cooling: On an increase in room temperature above the room set point, the hydronic valve opens to allow cold water to flow through the radiant device, if the system water is hot, the valve remains closed. On a decrease in room temperature out of the cooling proportional band, the hydronic valve closes.

Heating: On an decrease in room temperature below the room set point, the hydronic valve opens to allow hot water to flow through the radiant device, if system water is cold, the valve remains closed. On a increase in room temperature out of the heating proportional band, the hydronic valve closes.

Deadband: When the room is satisfied, the valve is in the closed position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller closes the hydronic valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

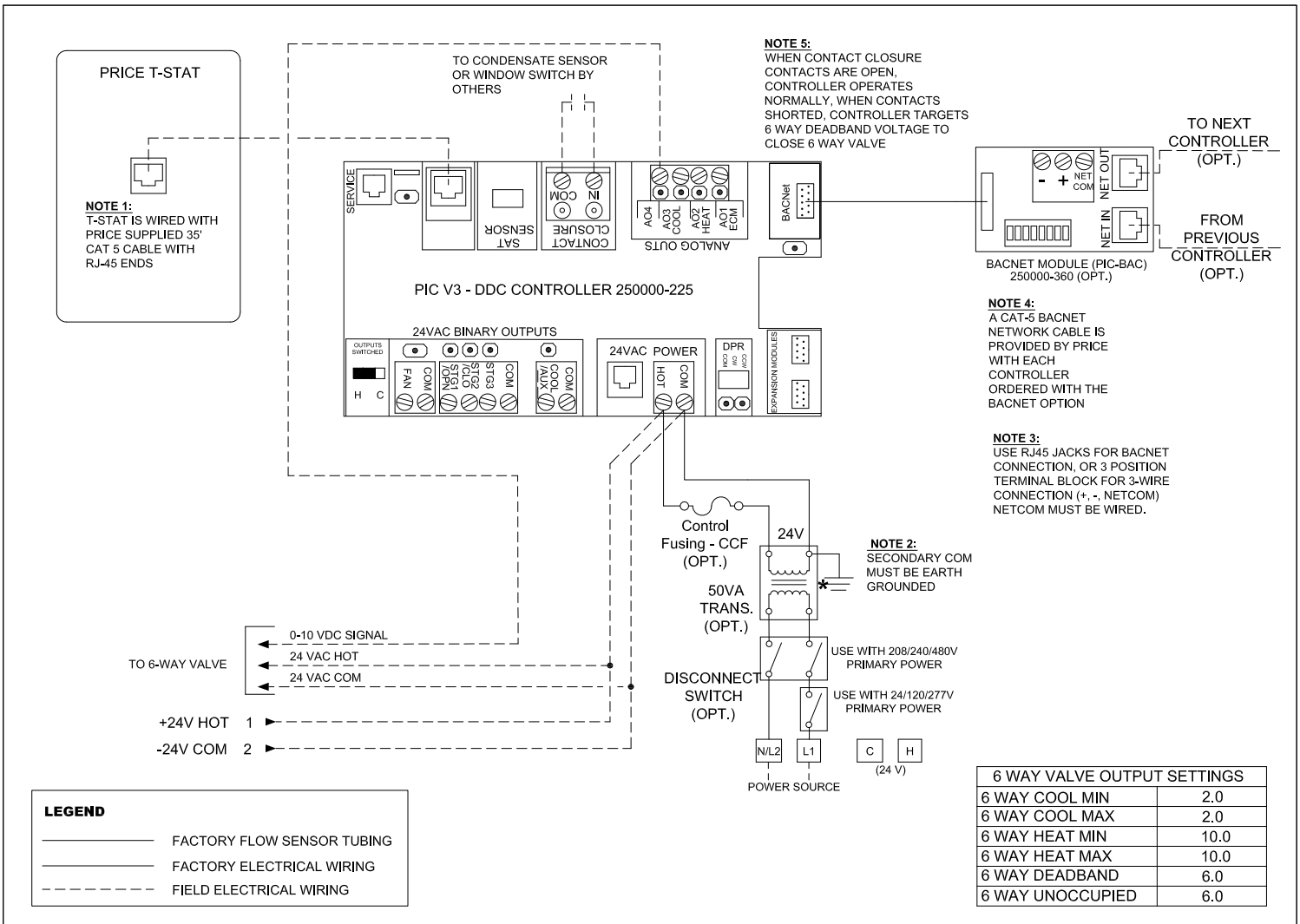
SPEC. SYMBOL:

271020

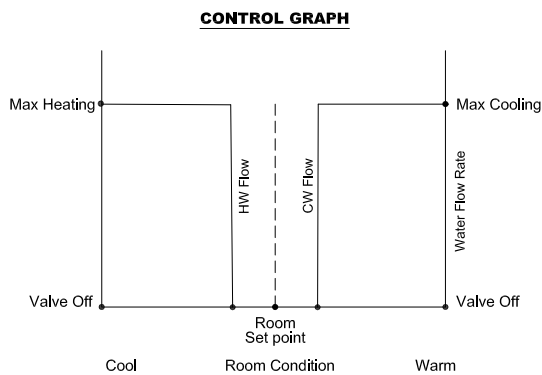
2019/05/24



**HYDRONIC SYSTEMS
2 PIPE SYSTEM
BINARY VALVE - HCCO
NO AIRFLOW CONTROL**



Sequence of Operation -- 6-way valve for HW or CHW flow through a 2-pipe beam



Cooling: On an increase in room temperature above the room set point, the 6-way valve opens to allow CHW to flow through the beam. The HW flow remains off.

Heating: On a decrease in room temperature below the room set point, the 6-way valve opens to allow HW to flow through the beam. The CHW flow remains off.

Deadband: When the room is satisfied, the 6 way valve is in the off position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller shuts off the 6-way valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

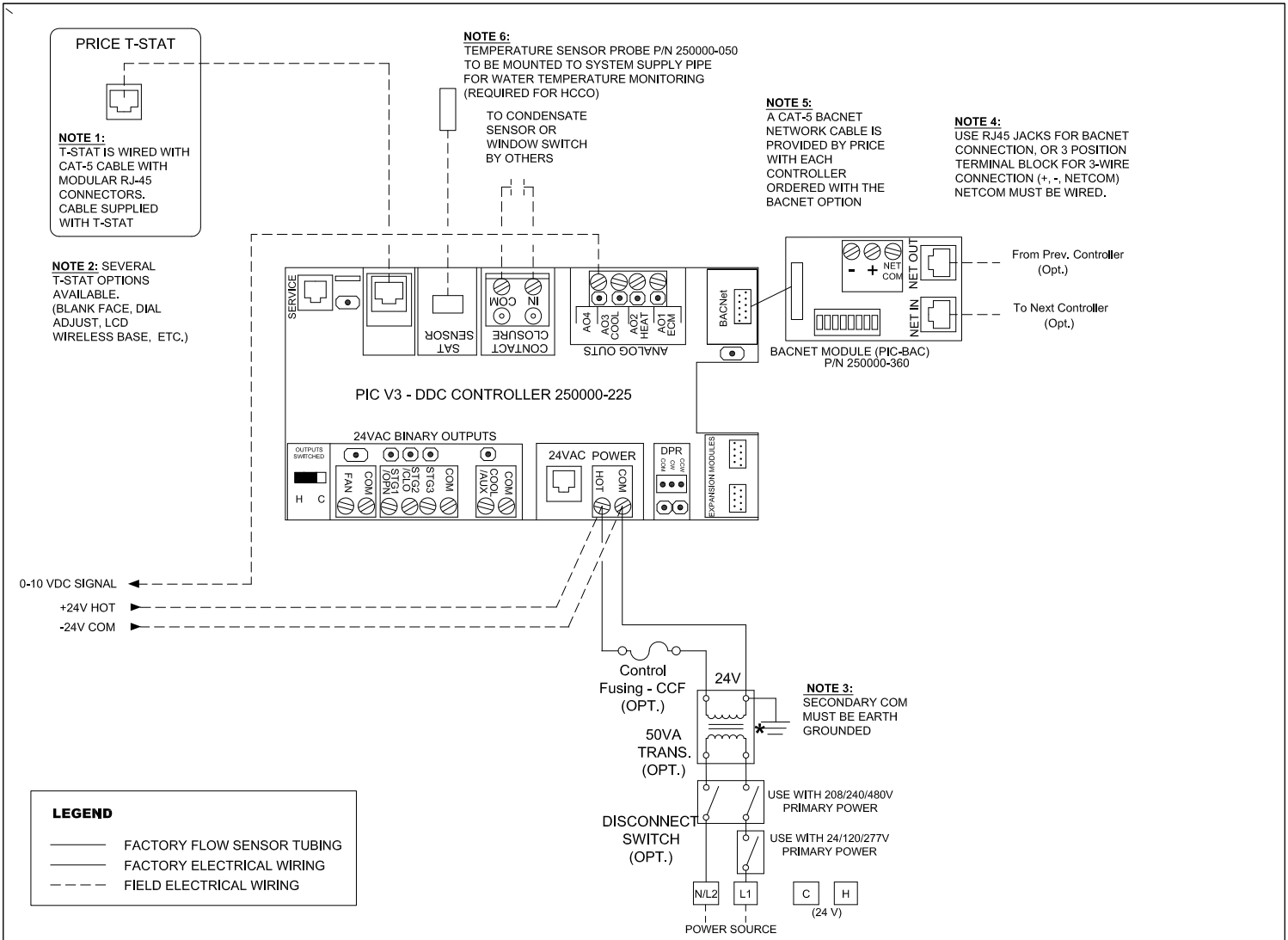
SPEC. SYMBOL:

271021

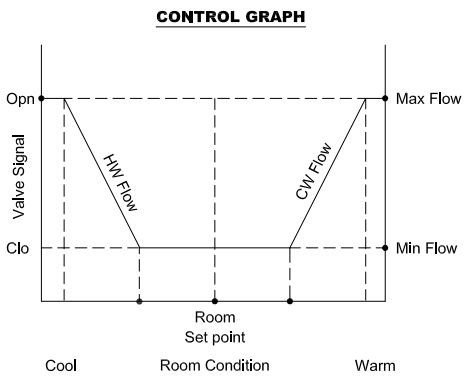
2019/05/24



**HYDRONIC SYSTEMS
4 PIPE SYSTEM
2 PIPE BEAM
BINARY 6-WAY VALVE
NO AIRFLOW CONTROL**



Sequence of Operation -- Modulating water valve control with HCCO



Cooling: On an increase in room temperature above the room set point, the hydronic valve opens to allow cold water to flow through the radiant device, if the system water is hot, the valve remains at minimum. On a decrease in room temperature, the hydronic valve closes to a pre selected minimum flow rate.

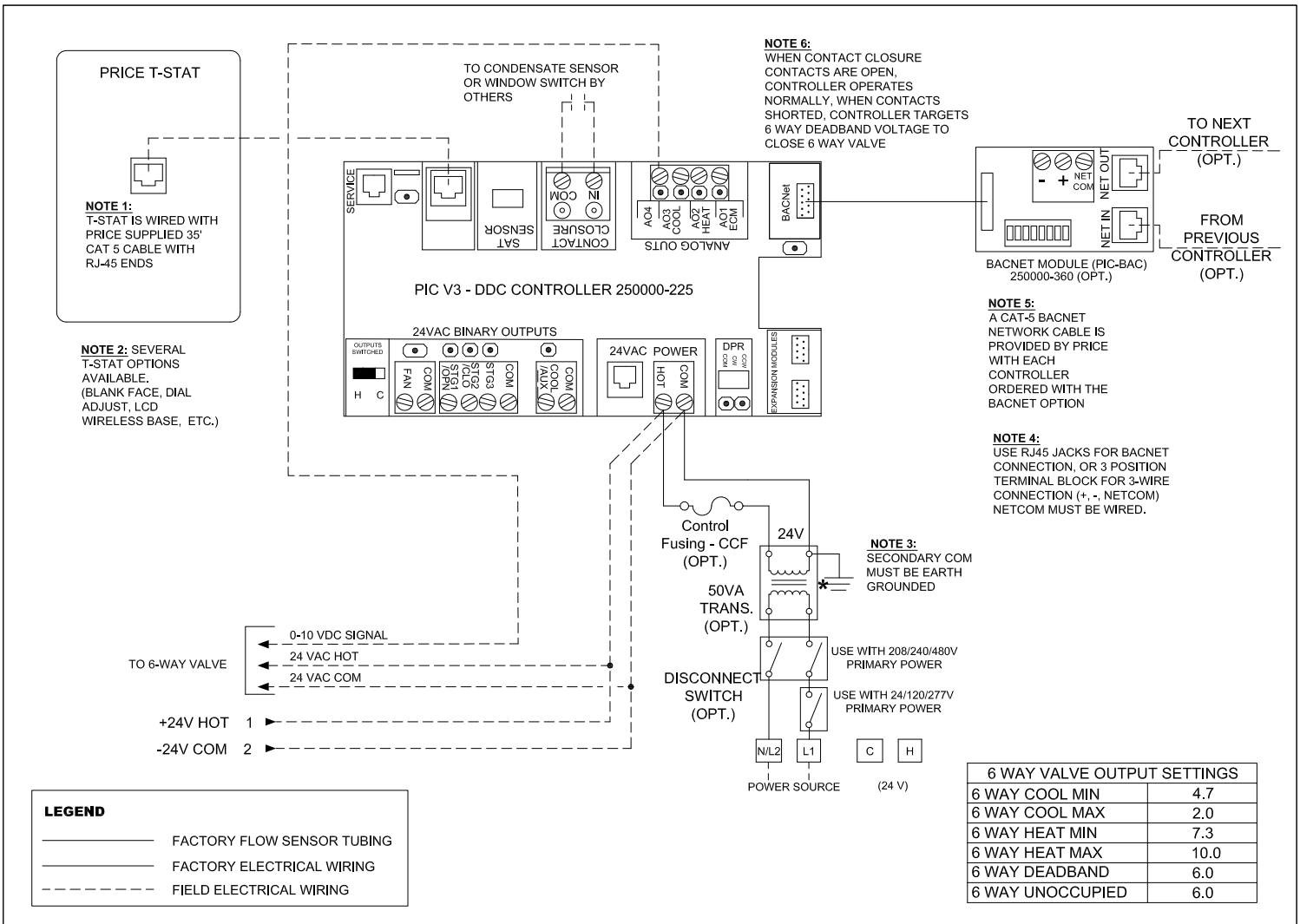
Heating: On an decrease in room temperature below the room set point, the hydronic valve opens to allow hot water to flow through the radiant device, if system water is cold, the valve remains at minimum. On a increase in room temperature, the hydronic valve closes to a pre selected minimum flow rate.

Deadband: When the room is satisfied, the valve is in the closed position, preventing any water flow to the beam.

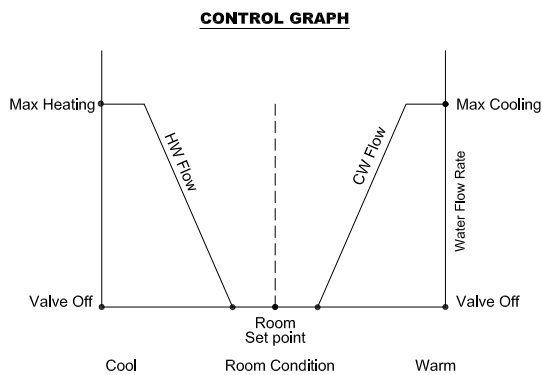
Condensate Sensor: When the switch is closed (upon detection of condensation), the controller closes the hydronic valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:		PRICE [®]
ENGINEER:		
CUSTOMER:		271022
SUBMITTAL DATE:	SPEC. SYMBOL:	2019/05/24

**HYDRONIC SYSTEMS
2 PIPE SYSTEM
MODULATING VALVE - HCCO
NO AIRFLOW CONTROL**



Sequence of Operation -- 6-way valve for modulating HW or CHW flow through a 2-pipe beam



Cooling: On an increase in room temperature above the room set point, the 6-way valve modulates open to allow CHW to flow through the beam. The HW flow remains off.

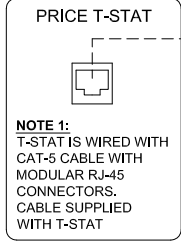
Heating: On a decrease in room temperature below the room set point, the 6-way valve modulates open to allow HW to flow through the beam. The CHW flow remains off.

Deadband: When the room is satisfied, the 6 way valve is in the off position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller shuts off the 6-way valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:		PRICE [®]
ENGINEER:		
CUSTOMER:		271023
SUBMITTAL DATE:	SPEC. SYMBOL:	2019/05/24

**HYDRONIC SYSTEMS
4 PIPE SYSTEM
2 PIPE BEAM
6-WAY VALVE
NO AIRFLOW CONTROL**

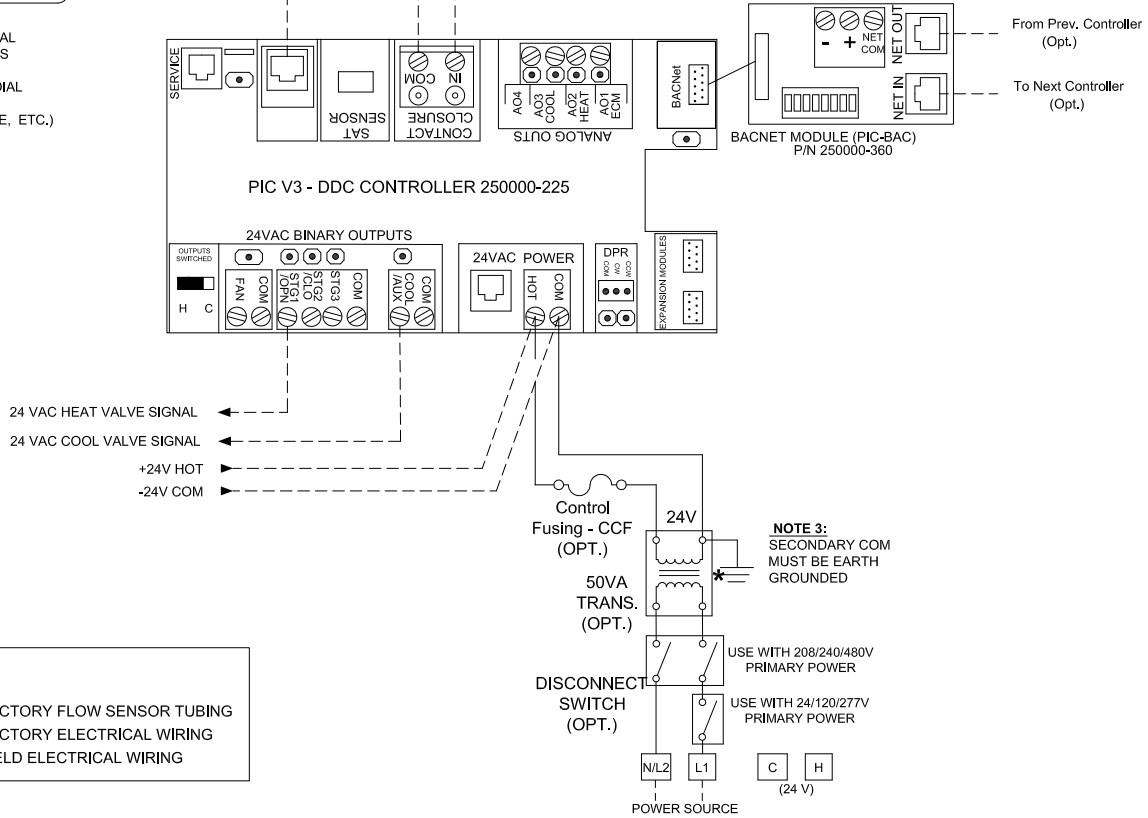


NOTE 2: SEVERAL T-STAT OPTIONS AVAILABLE. (BLANK FACE, DIAL ADJUST, LCD WIRELESS BASE, ETC.)

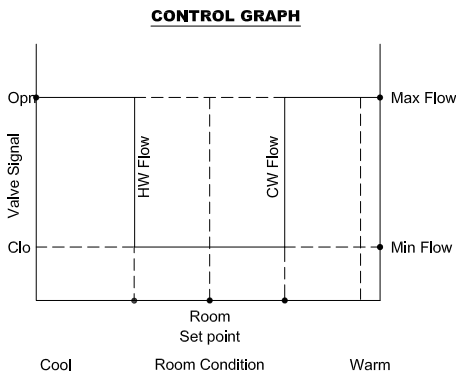
TO CONDENSATE SENSOR OR WINDOW SWITCH BY OTHERS

NOTE 5:
A CAT-5 BACNET NETWORK CABLE IS PROVIDED BY PRICE WITH EACH CONTROLLER ORDERED WITH THE BACNET OPTION

NOTE 4:
USE RJ45 JACKS FOR BACNET CONNECTION, OR 3 POSITION TERMINAL BLOCK FOR 3-WIRE CONNECTION (+, -, NETCOM) NETCOM MUST BE WIRED.



Sequence of Operation -- 4 pipe binary heat and cool water valve control



Cooling: On an increase in room temperature above the room set point, the cooling valve opens to allow cold water to flow through the radiant device. On a decrease in room temperature out of the cooling proportional band, the cooling valve valve closes.

Heating: On an decrease in room temperature below the room set point, the heating valve opens to allow hot water to flow through the radiant device. On an increase in room temperature outside of the heating proportional band, the heating valve closes.

Deadband: When the room is satisfied, both valves are in the closed position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller will keep the hydronic valves closed to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

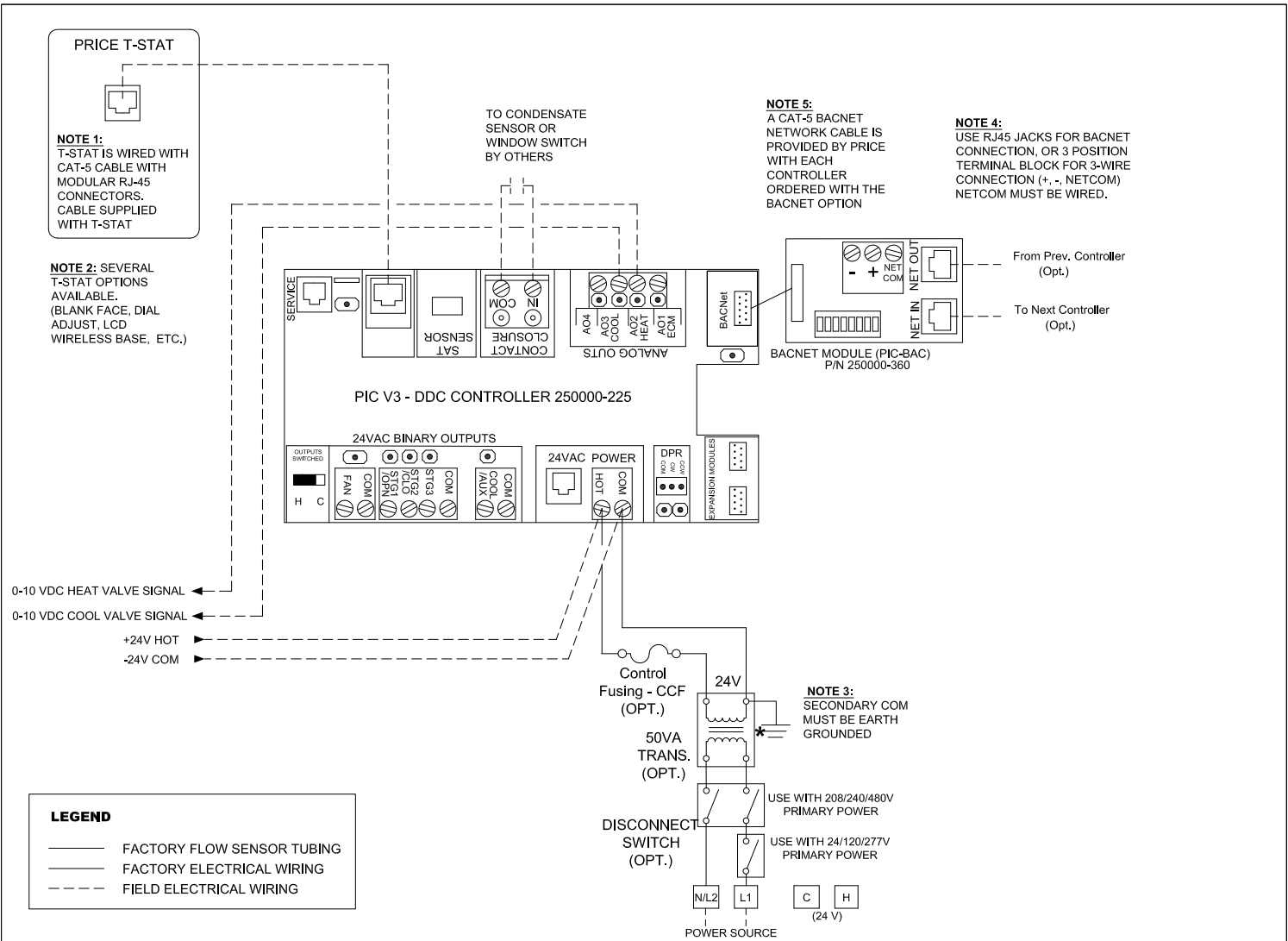
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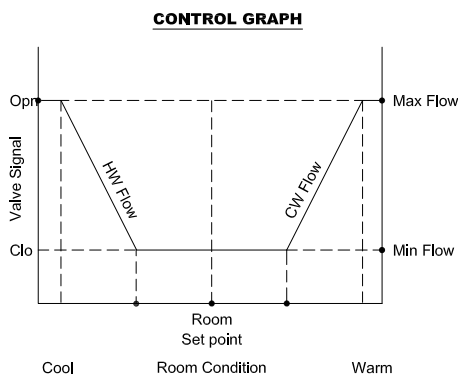
2019/05/24



**HYDRONIC SYSTEMS
4 PIPE SYSTEM
BINARY HEAT AND COOL
NO AIRFLOW CONTROL**



Sequence of Operation -- 4 pipe modulating heat and cool water valve control



Cooling: On an increase in room temperature above the room set point, the cooling valve modulates open to allow cold water to flow through the radiant device. On a decrease in room temperature, the hydronic valve closes.

Heating: On an decrease in room temperature below the room set point, the heating valve modulates open to allow hot water to flow through the radiant device. On a increase in room temperature, the hydronic valve closes.

Deadband: When the room is satisfied, both valves are in the closed position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller will keep the hydronic valves closed to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

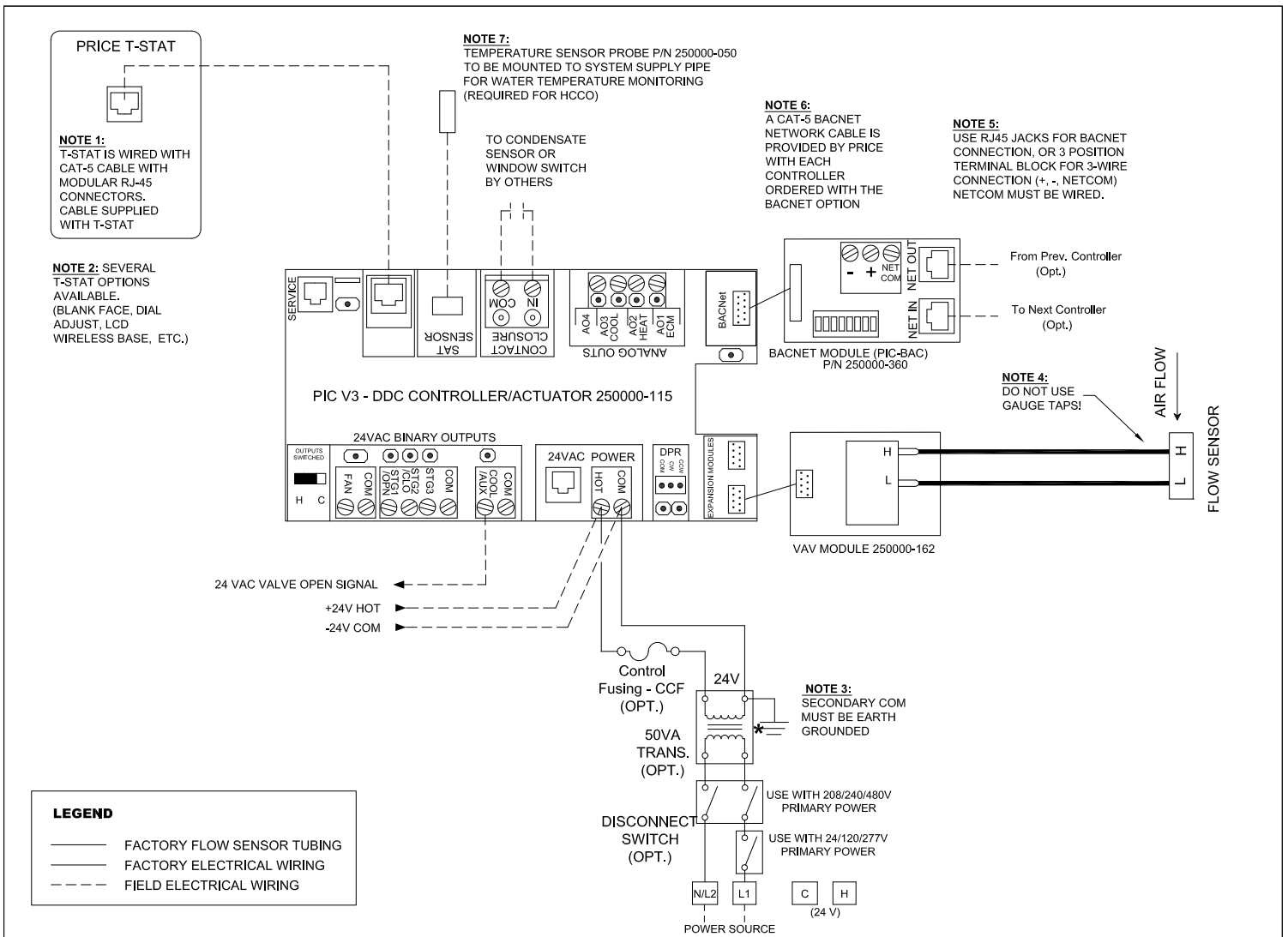
SPEC. SYMBOL:

271025

2019/05/24



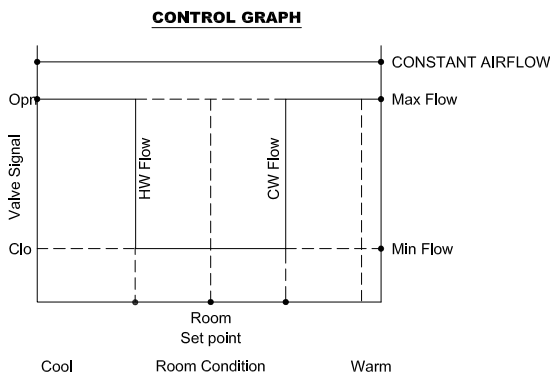
**HYDRONIC SYSTEMS
4 PIPE SYSTEM
MODULATING HEAT AND COOL
NO AIRFLOW CONTROL**



LEGEND

- FACTORY FLOW SENSOR TUBING
- FACTORY ELECTRICAL WIRING
- - - - FIELD ELECTRICAL WIRING

Sequence of Operation -- 2 pipe binary water valve control with HCCO, constant airflow



Cooling: On an increase in room temperature above the room set point, the hydronic valve opens to allow cold water to flow through the radiant device, if the system water is hot, the valve remains closed. On a decrease in room temperature out of the cooling proportional band, the hydronic valve closes.

Heating: On an decrease in room temperature below the room set point, the hydronic valve opens to allow hot water to flow through the radiant device, if system water is cold, the valve remains closed. On a increase in room temperature out of the heating proportional band, the hydronic valve closes.

Deadband: When the room is satisfied, the valve is in the closed position, preventing any water flow to the beam.

Constant Airflow: The damper actuator modulates to maintain a constant airflow CFM (adjustable) while the controller is in occupied mode. If the controller goes into unoccupied mode, a different constant airflow CFM (adjustable) will be maintained by the damper.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller closes the hydronic valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

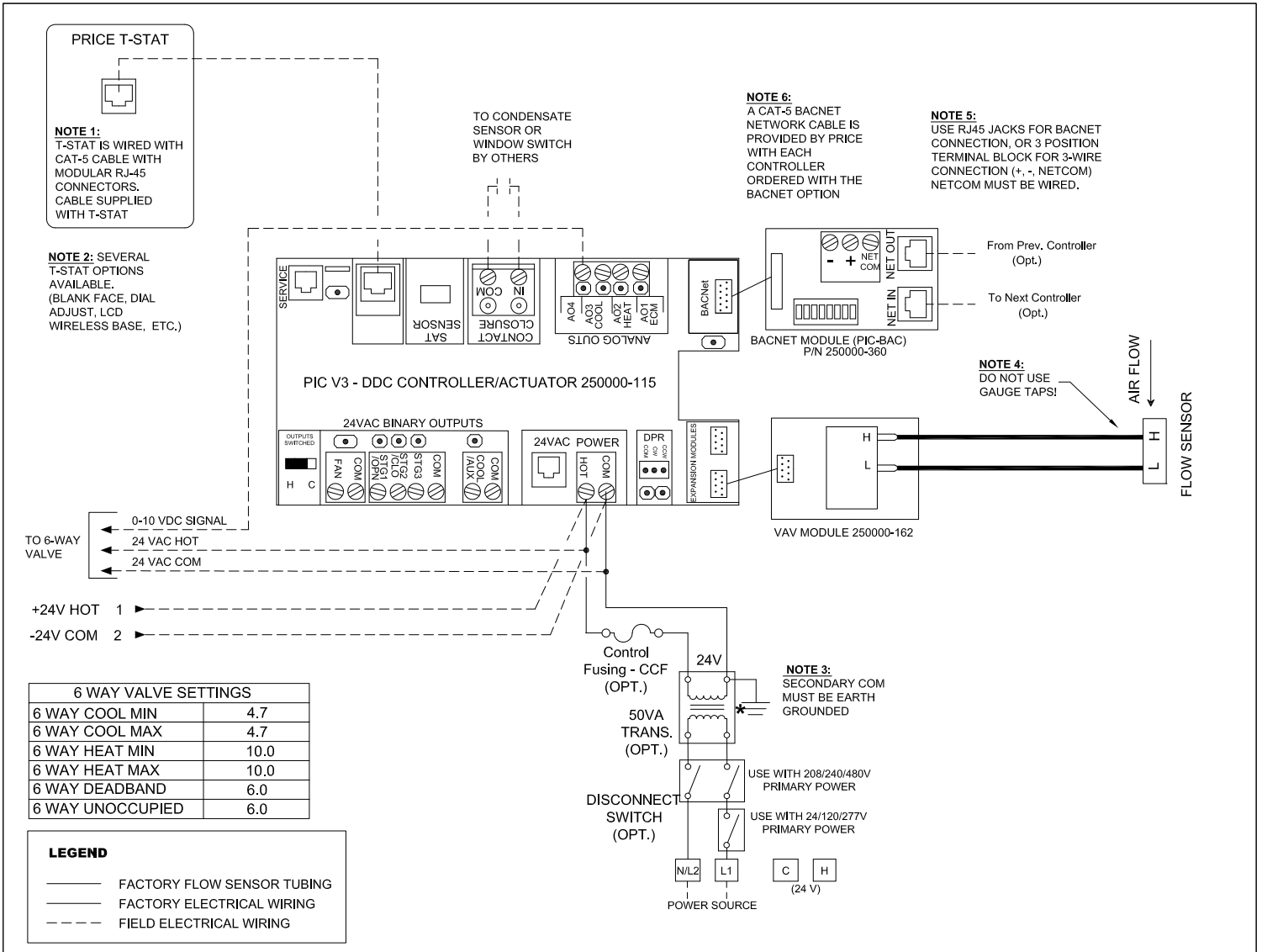
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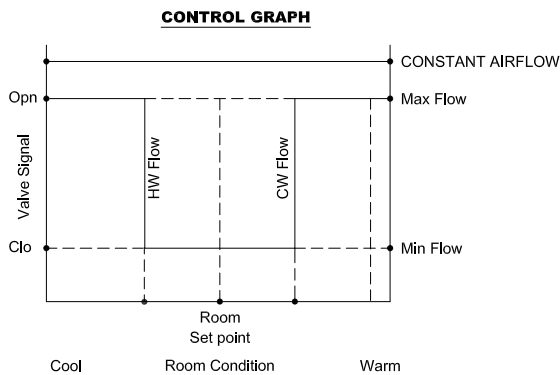
2019/05/24



**HYDRONIC SYSTEMS
2 PIPE SYSTEM
BINARY VALVE - HCCO
CONSTANT AIRFLOW**



Sequence of Operation -- Binary 6 way valve control, constant airflow



Cooling: On an increase in room temperature above the room set point, the 6 way valve opens to allow cold water to flow through the radiant device. On a decrease in room temperature, the hydronic valve closes.

Heating: On an decrease in room temperature below the room set point, the hydronic valve opens to allow hot water to flow through the radiant device. On a increase in room temperature, the hydronic valve closes.

Deadband: When the room is satisfied, the valve is in the closed position, preventing any water flow to the beam.

Constant Airflow: The damper actuator modulates to maintain a constant airflow CFM (adjustable) while the controller is in occupied mode. If the controller goes into unoccupied mode, a different constant airflow CFM (adjustable) will be maintained by the damper.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller shuts off the 6-way valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

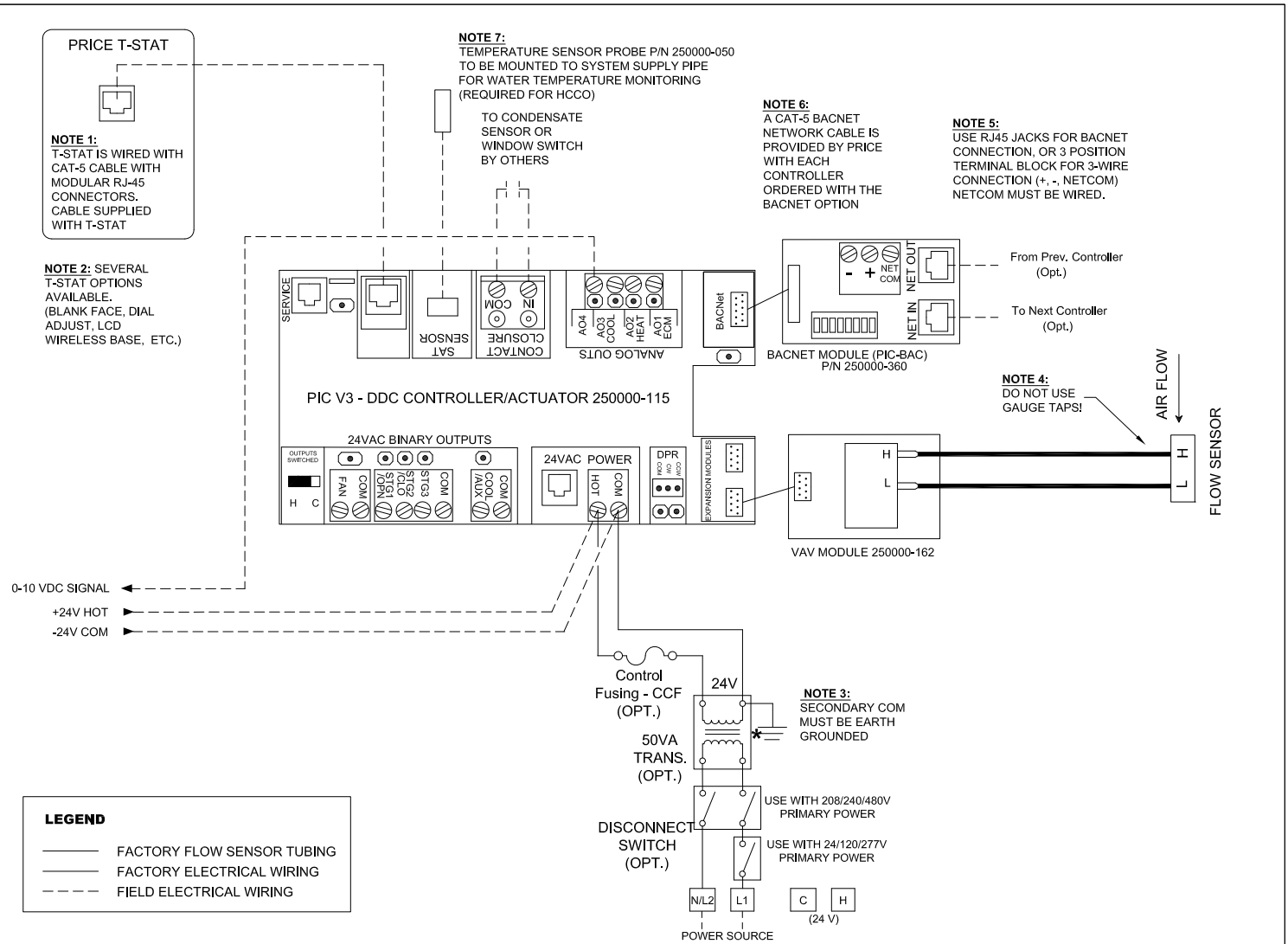
SPEC. SYMBOL:

271027

2019/05/24



**HYDRONIC SYSTEMS
4 PIPE SYSTEM
2 PIPE BEAM
6-WAY BINARY VALVE
CONSTANT AIRFLOW**



Sequence of Operation -- 2 pipe modulating water valve control with HCCO, constant airflow


Cooling: On an increase in room temperature above the room set point, the hydronic valve opens to allow cold water to flow through the radiant device, if the system water is hot, the valve remains at minimum. On a decrease in room temperature, the hydronic valve closes to a pre selected minimum flow rate.

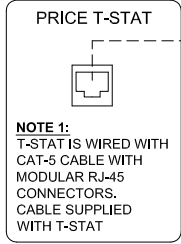
Heating: On an decrease in room temperature below the room set point, the hydronic valve opens to allow hot water to flow through the radiant device, if system water is cold, the valve remains at minimum. On a increase in room temperature, the hydronic valve closes to a pre selected minimum flow rate.

Deadband: When the room is satisfied, the valve is in the closed position, preventing any water flow to the beam.

Constant Airflow: The damper actuator modulates to maintain a constant airflow CFM (adjustable) while the controller is in occupied mode. If the controller goes into unoccupied mode, a different constant airflow CFM (adjustable) will be maintained by the damper.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller closes the hydronic valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:		 <p>HYDRONIC SYSTEMS 2 PIPE SYSTEM MODULATING VALVE - HCCO CONSTANT AIRFLOW</p>
ENGINEER:		
CUSTOMER:		
SUBMITTAL DATE:	SPEC. SYMBOL:	
		271028
		2019/05/24

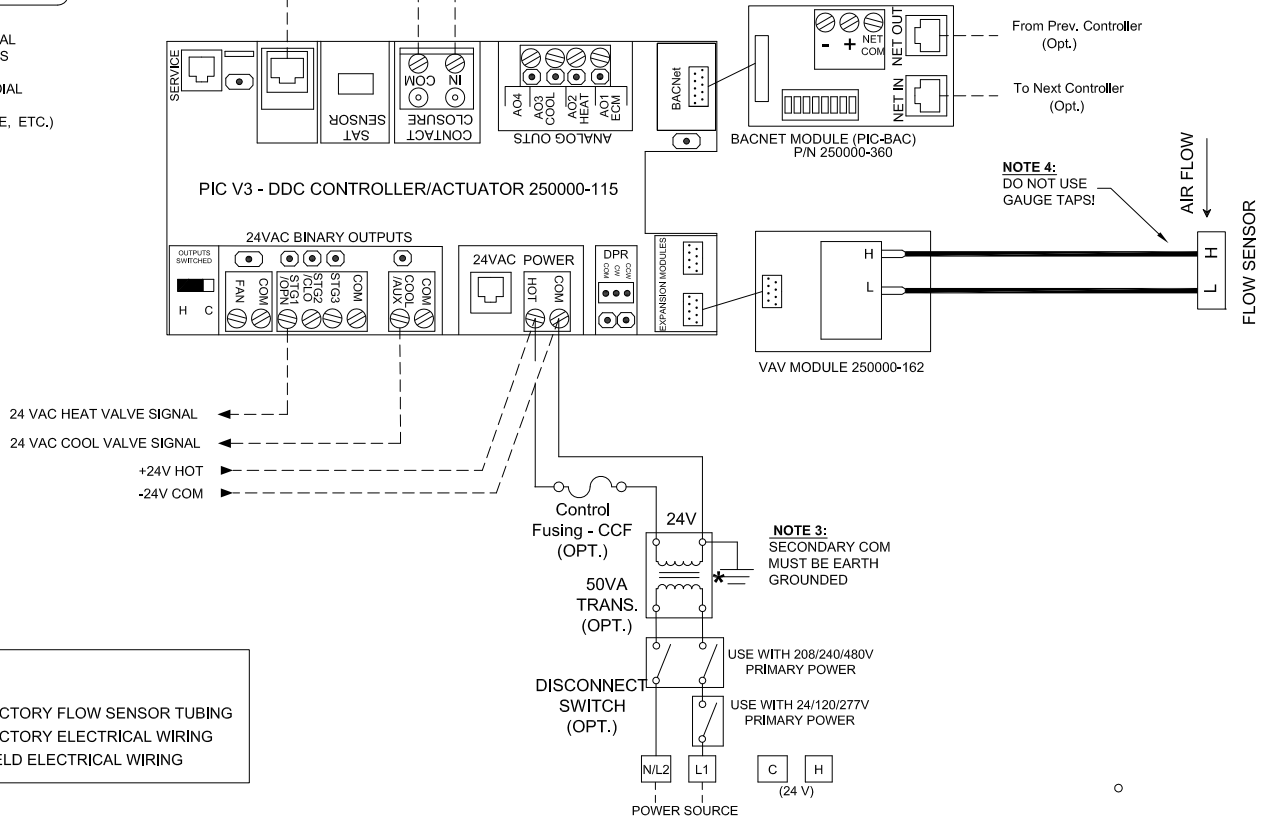


NOTE 2: SEVERAL T-STAT OPTIONS AVAILABLE. (BLANK FACE, DIAL ADJUST, LCD WIRELESS BASE, ETC.)

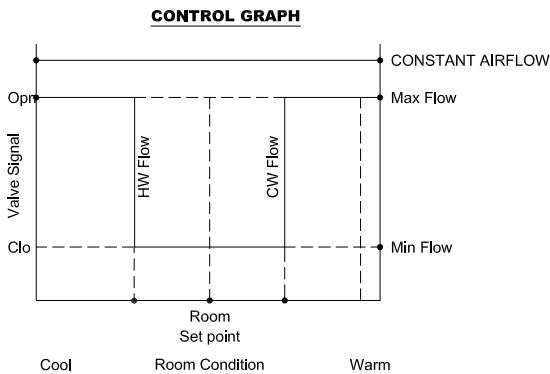
TO CONDENSATE SENSOR OR WINDOW SWITCH BY OTHERS

NOTE 6:
A CAT-5 BACNET NETWORK CABLE IS PROVIDED BY PRICE WITH EACH CONTROLLER ORDERED WITH THE BACNET OPTION

NOTE 5:
USE RJ45 JACKS FOR BACNET CONNECTION, OR 3 POSITION TERMINAL BLOCK FOR 3-WIRE CONNECTION (+, -, NETCOM) NETCOM MUST BE WIRED.



Sequence of Operation -- 4 pipe binary heat and cool water valve control, constant airflow



Cooling: On an increase in room temperature above the room set point, the cooling valve opens to allow cold water to flow through the radiant device. On a decrease in room temperature outside of the cooling proportional band, the hydronic valve closes.

Heating: On an decrease in room temperature below the room set point, the heating valve opens to allow hot water to flow through the radiant device. On an increase in room temperature outside of the heating proportional band, the hydronic valve closes.

Deadband: When the room is satisfied, both valves are in the closed position, preventing any water flow to the beam.

Constant Airflow: The damper actuator modulates to maintain a constant airflow CFM (adjustable) while the controller is in occupied mode. If the controller goes into unoccupied mode, a different constant airflow CFM (adjustable) will be maintained by the damper.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller will keep the hydronic valves closed to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

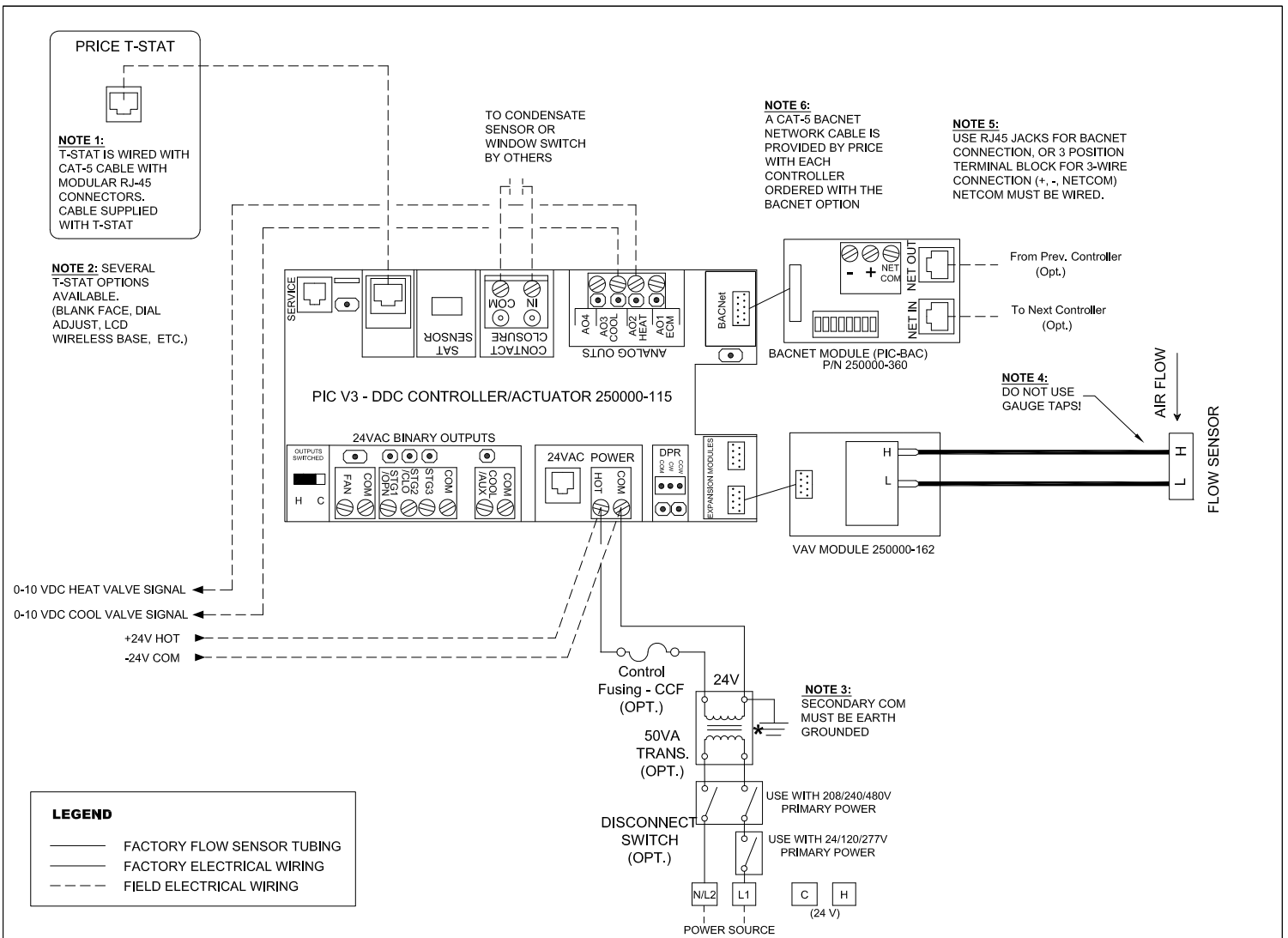
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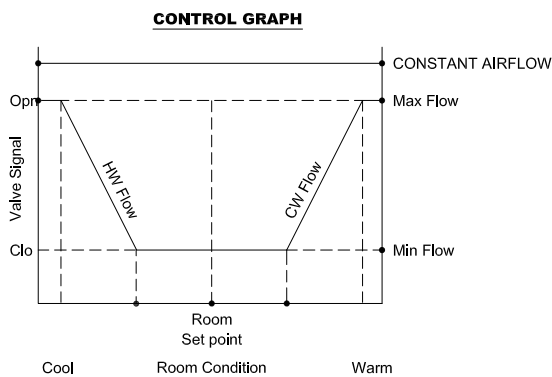
2019/05/24



**HYDRONIC SYSTEMS
4 PIPE SYSTEM
BINARY HEAT AND COOL
CONSTANT AIRFLOW**



Sequence of Operation -- 4 pipe modulating heat and cool water valve control, constant airflow



Cooling: On an increase in room temperature above the room set point, the cooling valve modulates open to allow cold water to flow through the radiant device. On a decrease in room temperature, the hydronic valve closes.

Heating: On an decrease in room temperature below the room set point, the heating valve modulates open to allow hot water to flow through the radiant device. On an increase in room temperature, the hydronic valve closes.

Deadband: When the room is satisfied, both valves are in the closed position, preventing any water flow to the beam.

Constant Airflow: The damper actuator modulates to maintain a constant airflow CFM (adjustable) while the controller is in occupied mode. If the controller goes into unoccupied mode, a different constant airflow CFM (adjustable) will be maintained by the damper.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller will keep the hydronic valves closed to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

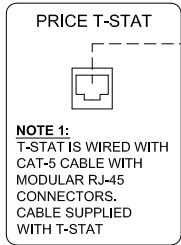
SPEC. SYMBOL:

271031

2019/05/24



**HYDRONIC SYSTEMS
4 PIPE SYSTEM
MODULATING HEAT AND COOL
CONSTANT AIRFLOW**

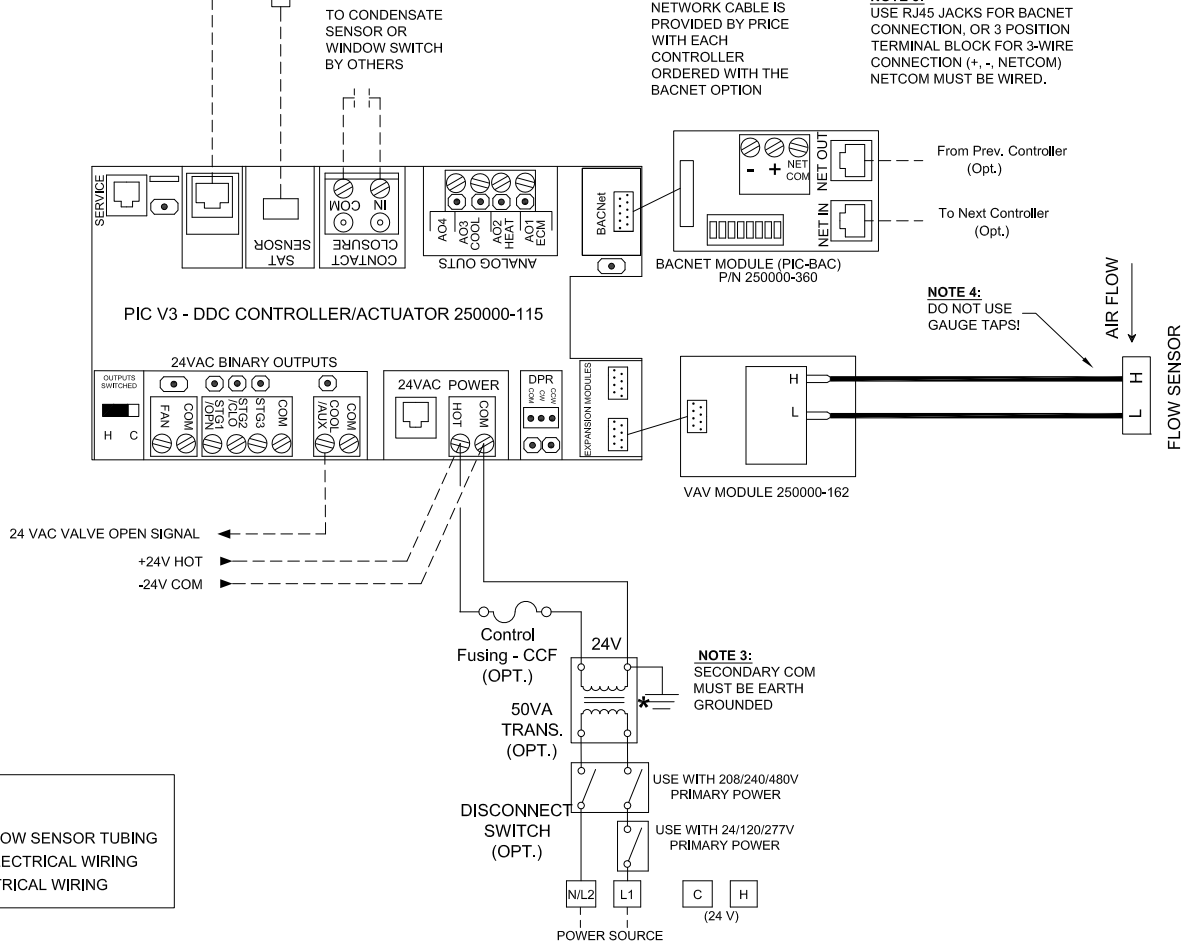


NOTE 7:
TEMPERATURE SENSOR PROBE P/N 250000-050 TO BE MOUNTED TO SYSTEM SUPPLY PIPE FOR WATER TEMPERATURE MONITORING (REQUIRED FOR HCCO)

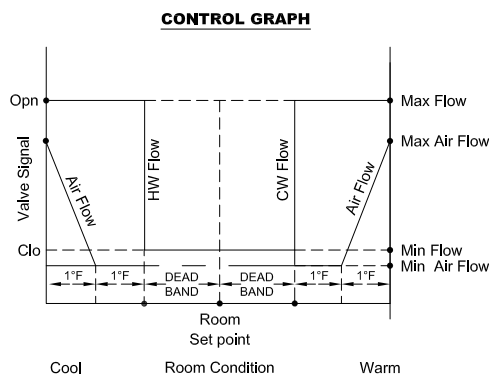
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NOTE 5:
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NOTE 2: SEVERAL T-STAT OPTIONS AVAILABLE. (BLANK FACE, DIAL ADJUST, LCD WIRELESS BASE, ETC.)



Sequence of Operation -- Binary water valve control with HCCO, variable airflow



Cooling: On an increase in room temperature of 1° above the room set point, the hydronic valve opens to allow cold water to flow through the radiant device, if the system water is hot, the valve remains at minimum. On an increase of temperature 2° above room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature. On a decrease in room temperature, the airflow damper goes to its minimum setting, and the hydronic valve closes.

Heating: On an decrease in room temperature of 1° below the room set point, the hydronic valve opens to allow hot water to flow through the radiant device, if system water is cold, the valve remains at minimum. On an decrease of temperature 2° below room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature. On a increase in room temperature, the airflow damper goes to its minimum setting, and the hydronic valve closes.

Deadband: When the room is satisfied, the valve is in the closed position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller closes the hydronic valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

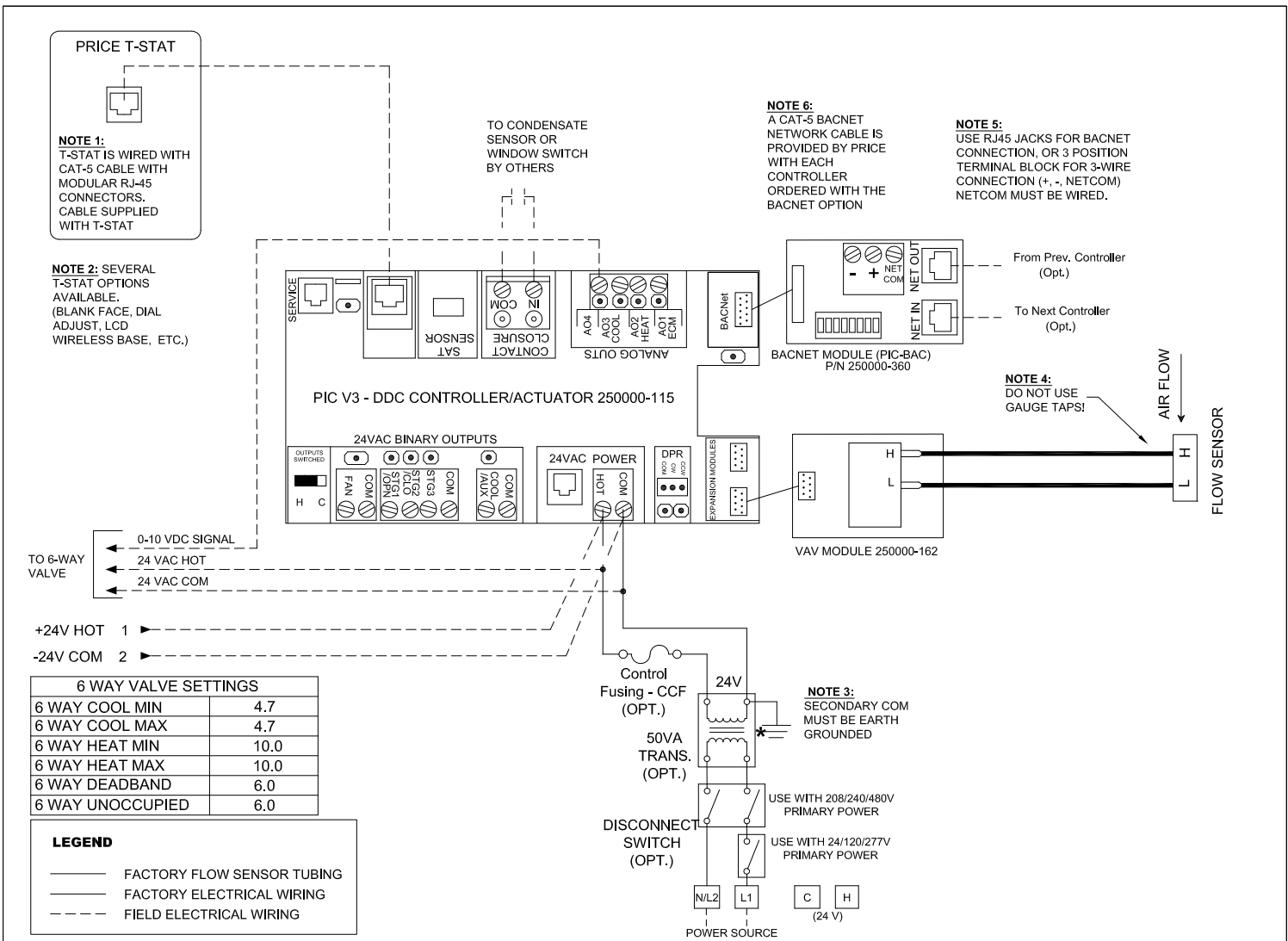
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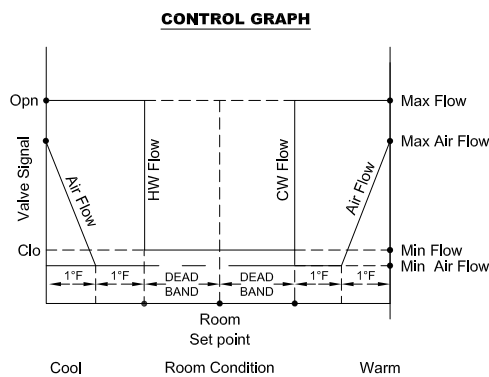
2019/05/24



**HYDRONIC SYSTEMS
2 PIPE SYSTEM
BINARY VALVE - HCCO
VARIABLE AIRFLOW**



Sequence of Operation -- 6 way binary water valve, variable air volume



Cooling: On an increase in room temperature of 1° above the room set point, the 6 way hydronic valve opens to allow cold water to flow through the radiant device. On an increase of temperature 2° above room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature.

On a decrease in room temperature, the airflow damper goes to its minimum setting, and the 6 way hydronic valve closes.

Heating: On an decrease in room temperature of 1° below the room set point, the 6 way hydronic valve opens to allow hot water to flow through the radiant device. On an decrease of temperature 2° below room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature.

On a increase in room temperature, the airflow damper goes to its minimum setting, and the 6 way hydronic valve closes.

Deadband: When the room is satisfied, the valve is in the closed position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller closes the hydronic valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

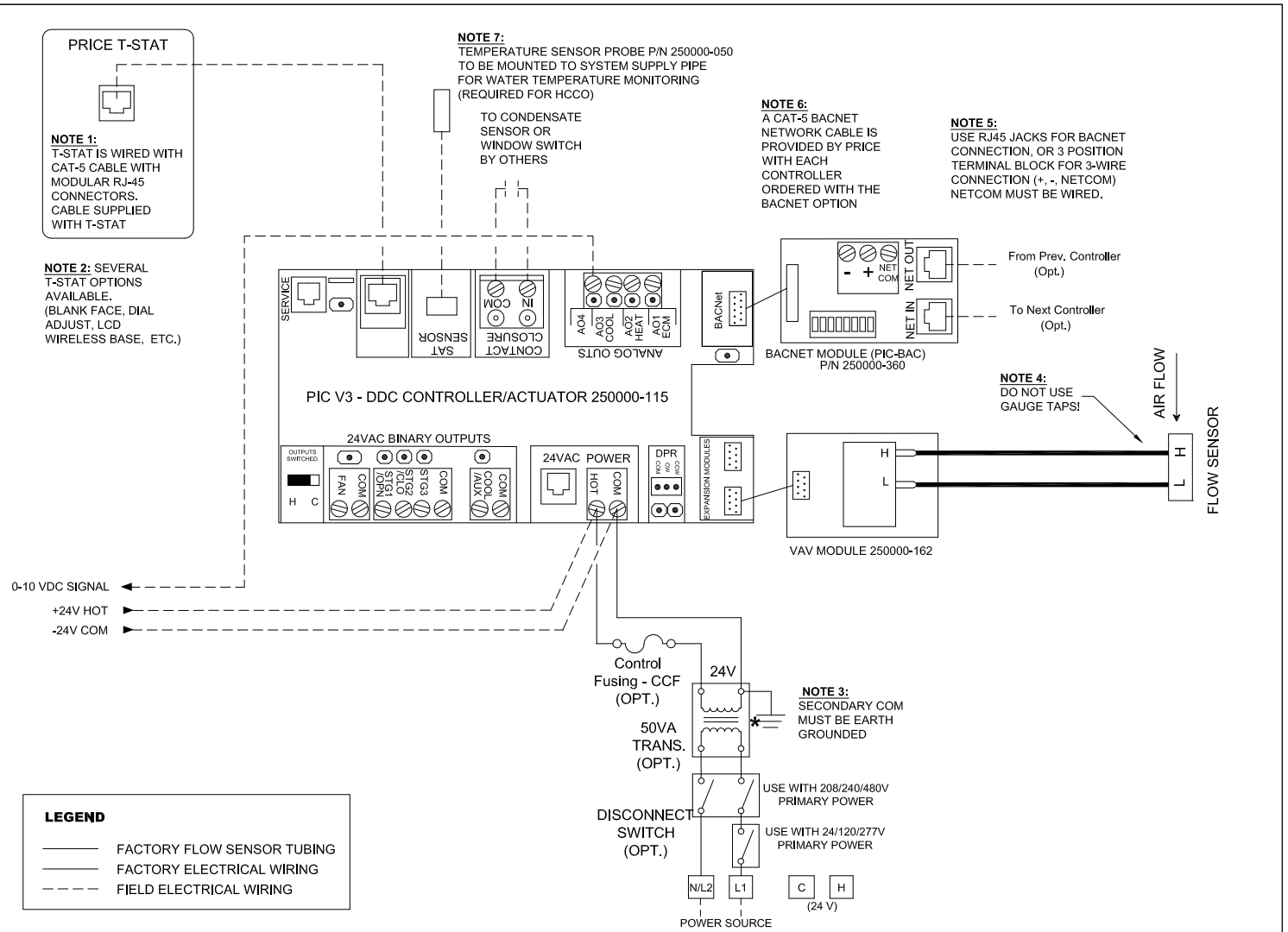
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2019/05/24

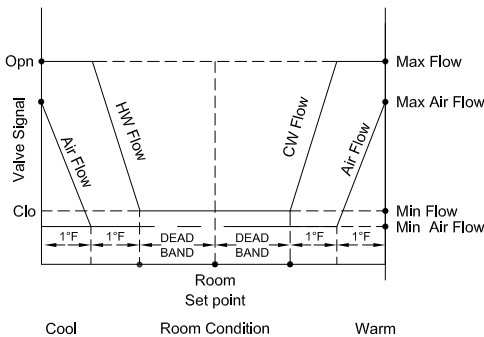


**HYDRONIC SYSTEMS
4 PIPE SYSTEM
2 PIPE BEAM
6 WAY VALVE
VARIABLE AIRFLOW**



Sequence of Operation -- 2 pipe modulating water valve with HCCO, variable airflow

CONTROL GRAPH



Cooling: On an increase in room temperature of 1° above the room set point, the hydronic valve modulates open to allow cold water to flow through the radiant device, if the system water is hot, the valve remains closed. On an increase of temperature 2° above room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature. On a decrease in room temperature, the airflow damper goes to its minimum setting, and the hydronic valve closes.

Heating: On a decrease in room temperature of 1° below the room set point, the hydronic valve modulates open to allow hot water to flow through the radiant device, if system water is cold, the valve remains closed. On an decrease of temperature 2° below room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature. On an increase in room temperature, the airflow damper goes to its minimum setting, and the hydronic valve closes.

Deadband: When the room is satisfied, the valve is in the closed position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller closes the hydronic valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

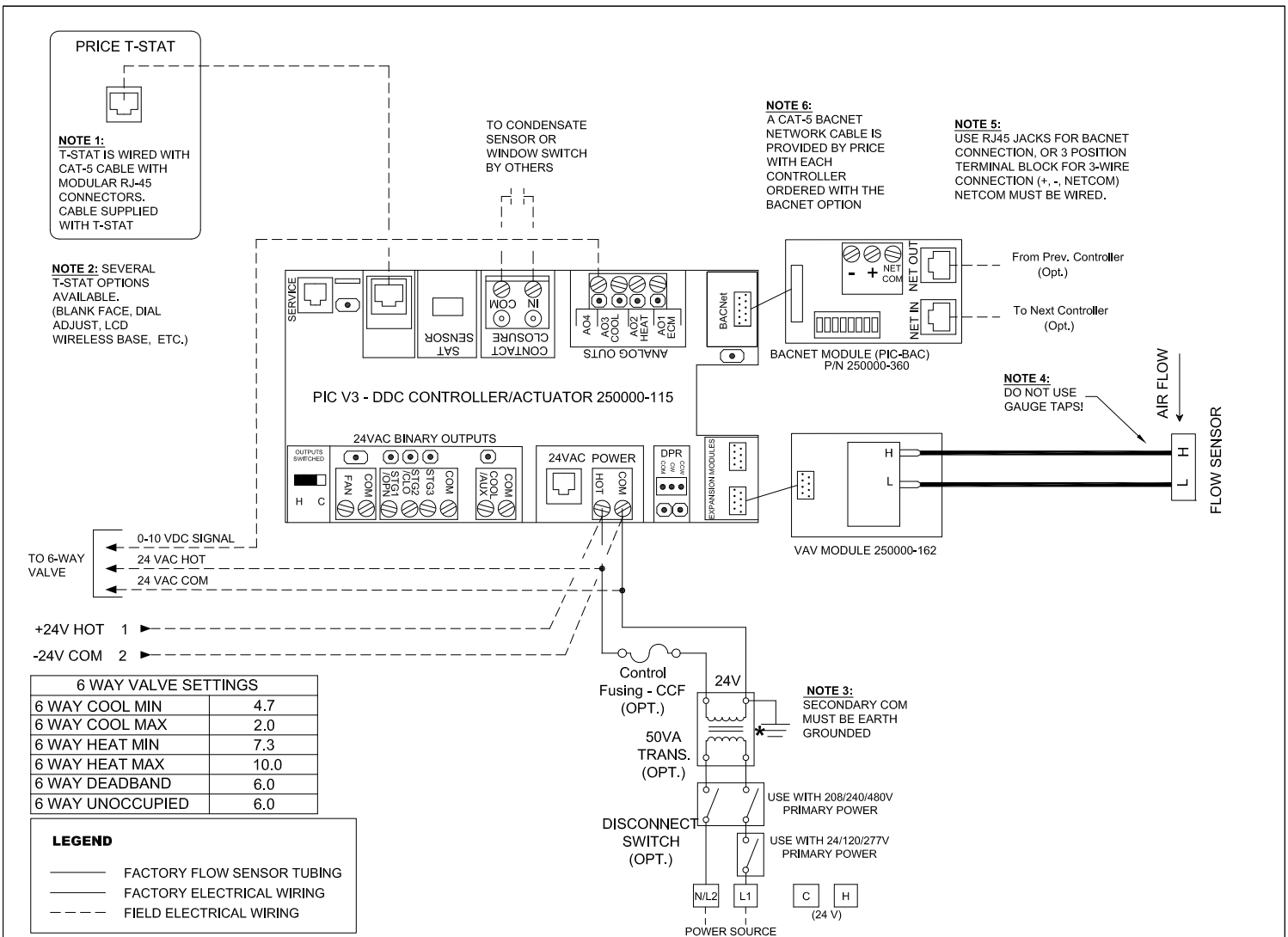
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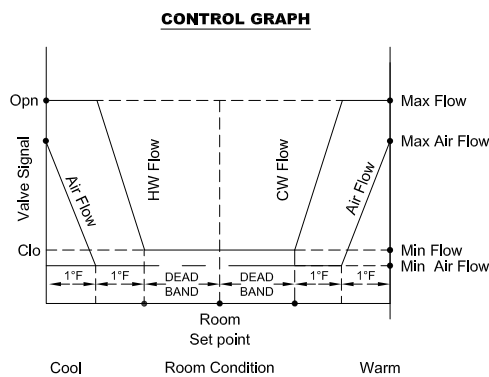
2019/05/24



**HYDRONIC SYSTEMS
2 PIPE SYSTEM
MODULATING VALVE - HCCO
VARIABLE AIRFLOW**



Sequence of Operation -- 6 way water valve, variable airflow



Cooling: On an increase in room temperature of 1° above the room set point, the 6 way hydronic valve modulates open to allow cold water to flow through the radiant device. On an increase of temperature 2° above room setpoint, the 6 way valve will already be fully open, and the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature. On a decrease in room temperature, the airflow damper goes to its minimum setting, and the 6 way hydronic valve closes to a pre selected minimum flow rate.

Heating: On an decrease in room temperature of 1° below the room set point, the 6 way hydronic valve modulates open to allow hot water to flow through the radiant device. On an decrease of temperature 2° below room setpoint, the 6 way valve will already be fully open, and the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature. On a increase in room temperature, the airflow damper goes to its minimum setting, and the 6 way hydronic valve closes to a pre selected minimum flow rate.

Deadband: When the room is satisfied, the valve is in the closed position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller closes the hydronic valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

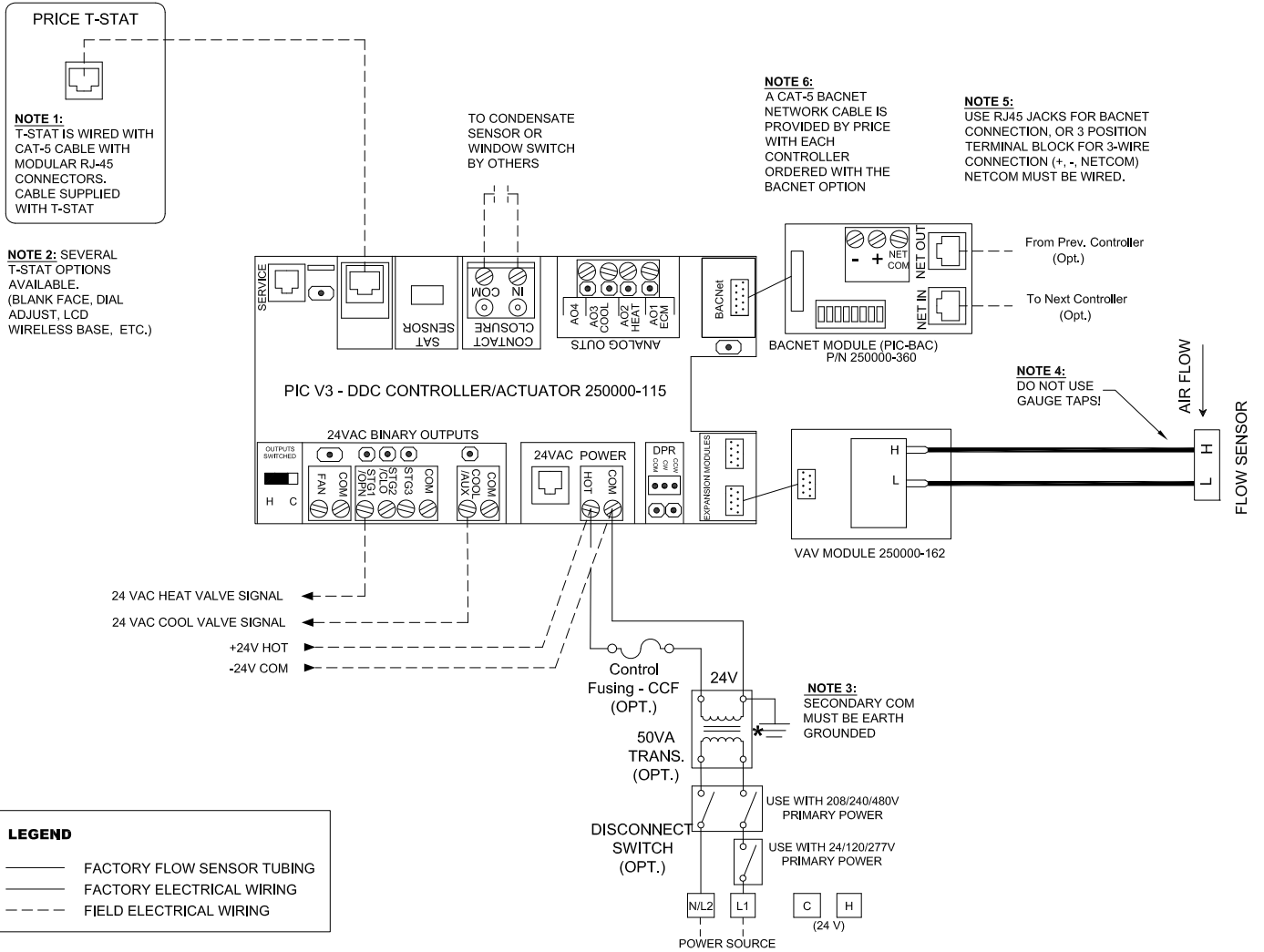
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271035

2019/05/24

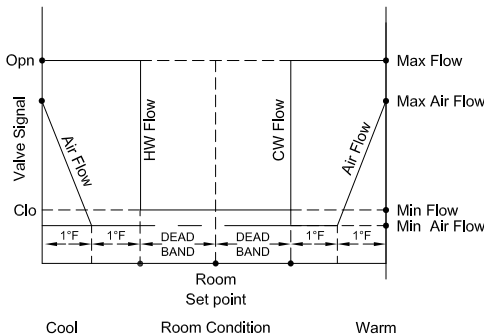


**HYDRONIC SYSTEMS
4 PIPE SYSTEM
2 PIPE BEAM
6 WAY VALVE
VARIABLE AIRFLOW**



Sequence of Operation -- 4 pipe binary heat and cool water valve control, variable airflow

CONTROL GRAPH



Cooling: On an increase in room temperature of 1° above the room set point, the cooling valve opens to allow cold water to flow through the radiant device. On an increase of temperature 2° above room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature.

On a decrease in room temperature, the airflow damper goes to its minimum setting, and the cooling valve closes.

Heating: On an decrease in room temperature of 1° below the room set point, the heating valve opens to allow hot water to flow through the radiant device. On an decrease of temperature 2° below room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature.

On an increase in room temperature, the airflow damper goes to its minimum setting, and the heating valve closes.

Deadband: When the room is satisfied, both valves are in the closed position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller will keep the hydronic valves closed to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

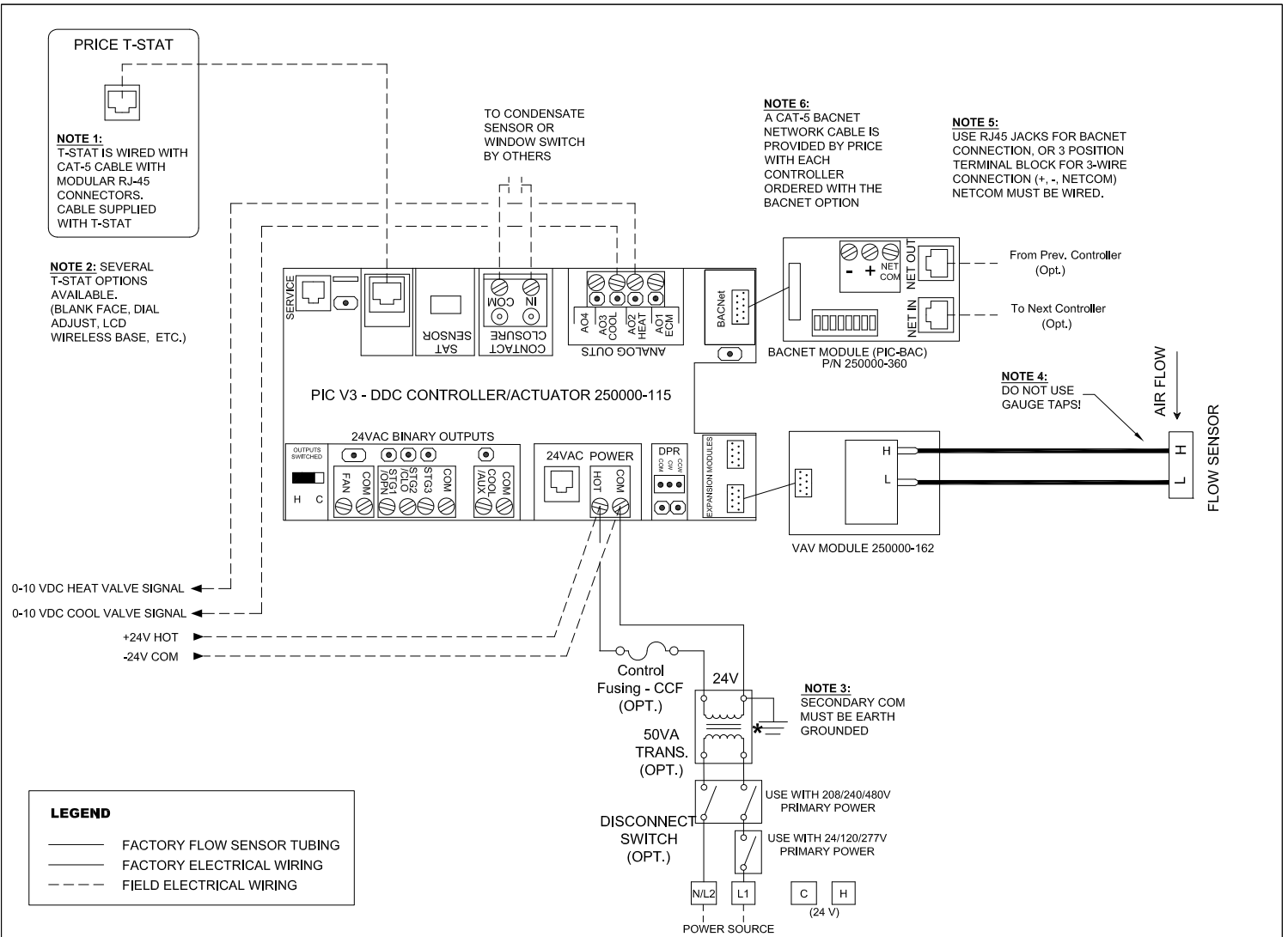
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2019/05/24

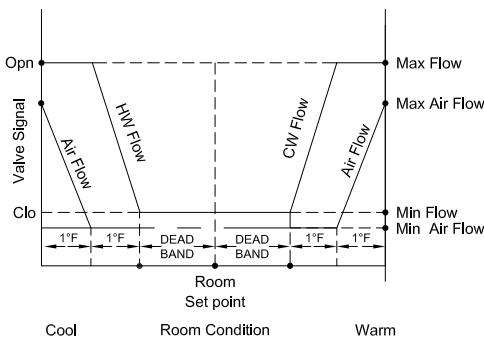


**HYDRONIC SYSTEMS
4 PIPE SYSTEM
BINARY HEAT AND COOL
VARIABLE AIRFLOW**



Sequence of Operation -- 4 pipe modulating heat and cool valves, variable airflow

CONTROL GRAPH



Cooling: On an increase in room temperature of 1° above the room set point, the cooling valve modulates open to allow cold water to flow through the radiant device. On an increase of temperature 2° above room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature.

On a decrease in room temperature, the airflow damper goes to its minimum setting, and the cooling valve closes.

Heating: On an decrease in room temperature of 1° below the room set point, the heatingvalve modulates open to allow hot water to flow through the radiant device. On an decrease of temperature 2° below room setpoint, the air damper will modulate between its minimum and maximum airflow positions proportional to room temperature.

On a increase in room temperature, the airflow damper goes to its minimum setting, and the heatingvalve closes.

Deadband: When the room is satisfied, the valves are in the closed position, preventing any water flow to the beam.

Condensate Sensor: When the switch is closed (upon detection of condensation), the controller closes the hydronic valve to stop the flow of water to the beam. The status of the sensor is reported over BACnet.

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

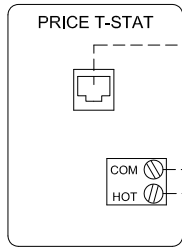
SPEC. SYMBOL:

271037

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**HYDRONIC SYSTEMS
4 PIPE SYSTEM
MODULATING HEAT AND COOL
VARIABLE AIRFLOW**



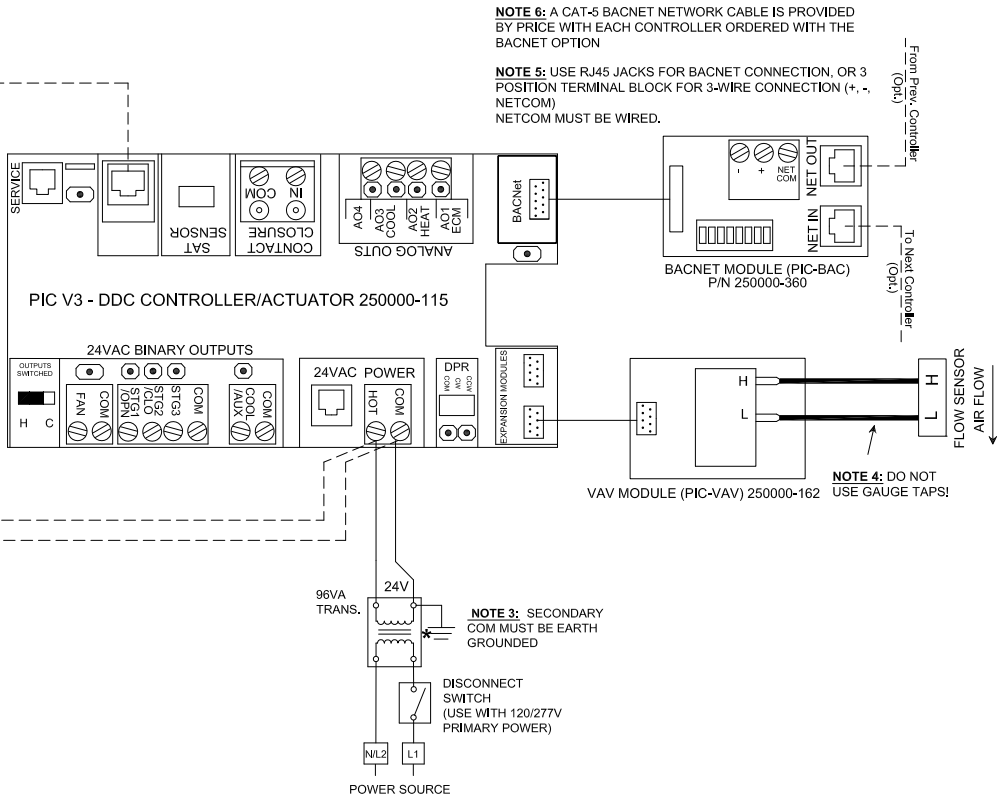
NOTE 1:
CO₂ / HUMIDITY T-STAT IS WIRED WITH CAT-5 CABLE AND REQUIRES 2 CONDUCTOR CABLE FOR 24 VAC HOT AND COMMON POWER (DUE TO CO₂ MODULE). BOTH CABLES SUPPLIED WITH T-STAT. PLEASE OBSERVE 24 VAC HOT AND COM POLARITY.

+24V HOT 1
-24V COM 2

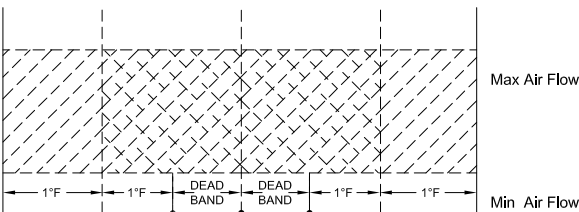
NOTE 2: 24 VAC POWER SOURCE MUST BE FIELD WIRED IF OPTIONAL TRANSFORMER IS NOT PROVIDED. TRANSFORMER SECONDARY COM MUST BE EARTH GROUNDING

LEGEND

- FACTORY FLOW SENSOR TUBING
- FACTORY ELECTRICAL WIRING
- - - - - FIELD ELECTRICAL WIRING



CONTROL GRAPH - UNITS WITH TEMP CONTROL DAMPER



DAMPER TARGET BASED ON CO₂

Sequence of Operation – CO₂ tracking, Variable Volume

On power up the damper will calibrate closed for 2 minutes.

The PIC shall maintain an airflow through the dampers that is directly proportional to either the CO₂ level in the occupied space (described below), or, on units with dampers which will modulate open as a second stage of cooling or heating - the damper will default to whichever sequence requires the most airflow. CO₂ and temperature are both measured at the Price thermostat.

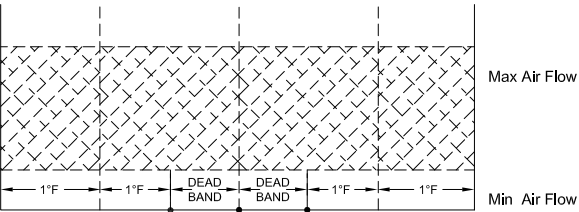
For Units Without Temperature Control Damper Operation: As the CO₂ reading increases from the minimum level to the maximum level (adjustable), the airflow is increased proportionally between the adjustable minimum and maximum airflow setting.

As the CO₂ reading decreases from the maximum level to the minimum level, the airflow is decreased proportionally from the maximum airflow setting to the minimum airflow setting.

For Units With Temperature Control Damper Operation: As the CO₂ reading increases from the minimum level to the maximum level (adjustable), the airflow is increased proportionally between the adjustable minimum and maximum airflow setting. If the temperature control sequence requires more airflow within the PI range that the damper is controlling based on temperature, than the damper will default to that setting.

As the CO₂ reading decreases from the maximum level to the minimum level, the airflow is decreased proportionally from the maximum airflow setting to the minimum airflow setting, or until the temperature control setpoint is reached.

CONTROL GRAPH - UNITS WITHOUT TEMP CONTROL DAMPER



DAMPER SELECTS HIGHEST TARGET BETWEEN CO₂ AND TEMPERATURE CONTROL

Cool Room Set point Room Condition Warm

PROJECT:

ENGINEER:

CUSTOMER:

SUBMITTAL DATE:

SPEC. SYMBOL:

271038

2019/05/24



**HYDRONIC SYSTEMS
CO₂ CONTROL SEQUENCE**