

Technical Guide

Vat Pasteurization System Wiring

CT8V Sensors w/SA52 Stems

The Vat Pasteurization sensors have two main components the CT8V wiring Heads and the SA52 sensor stems

The SA52 stems contain (2) - 3 wire RTD elements.

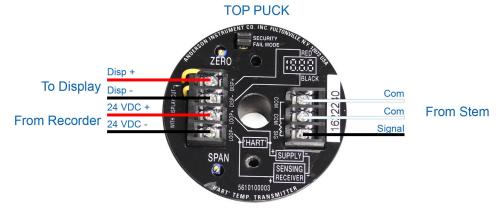
Element 1 has (1) - black wire and (2) - white wires; element 2 has (1) - blue wire and (2) - yellow wires. The black wires are the signal wires and the whites are the commons. One of the RTD's is wired to Sig, com and com terminals of the bottom puck inside the CT8V Housing. The 2nd RTD is wired to sig, com and com terminals of the top puck inside the CT8V housing.

The CT8V sensors contain a bottom puck, a top puck and a display.

RTD 1 from the SA52 stem is wired to the bottom puck as a feedthrough sending a signal from the stem out to the AJ300 recorder via green(signal), red(common) and white(common) conductors of cable 1 to TB4 (product) or TB5(airspace) terminal block on AJ300 motherboard.



RTD 2 from the SA52 stem is wired to the top puck sending a signal from the stem to the CT8V display only. The top puck receives 24 Volts DC power from the AJ recorder via red (DC +) and black (DC -) conductors of cable 2 from TB3 power supply terminal block on AJ300 motherboard.



Cable 1 and cable 2 shield (bare) wires are NOT connected inside the CT8V housings but wired together and connected to the chassis ground screw above the motherboard inside the AJ300 recorder.

*** Pre-wired CT8V sensors are supplied from the factory with receiver ends stripped and tinned. Cable 1 (Bottom Puck RTD feedthrough) will have green (signal), red (common), white (common) and clear (shield) wires exposed. Cable 2 (Top Puck 24DVC supply) will have red (DC+), Black (DC-) and clear (shield) wires exposed. Take care if cutting cables to shorten by shortening 1 cable at a time in order to identify cable 1 or cable 2 as both cables contain red, black, white, green and shield wires.

AJ300 Recorder

All wiring to recorder will connect to terminal blocks on the AJ motherboard.

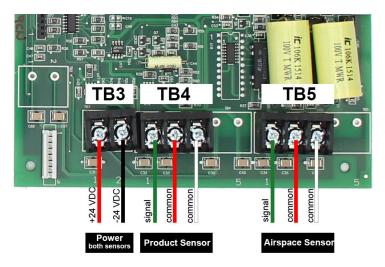
TB1 terminal block is located on the AJ300 Recorder motherboard (next to transformer). This is where the main AC power source is connected. L1 connects to TB1 terminal 1, L2 connects to TB1 terminal 2, and the AC ground wire connects to chassis ground screw above the motherboard.



TB3 terminal block is located on the bottom left corner of the motherboard. This is a 24 volt DC power supply where the red (loop +) and black (loop-) wires from the top pucks of the product and airspace sensors connect. Both red wires will connect to the left screw and both black wires will connect to the right screw.

TB4 terminal block is located directly to the right of TB3. TB4 is the input 1 terminal block where the RTD output from the bottom puck of the product sensor will connect. The green wire (signal) will connect to the left screw, the red wire (common) will connect to the center screw and the white wire (common) will connect to the right screw.

TB5 terminal block is located directly to the right of TB4. TB5 is the input 2 terminal block where the RTD output from the bottom puck of the air space sensor will connect. The green wire (signal) will connect to the left screw, the red wire (common) will connect to the center screw and the white wire (common) will connect to the right screw.



Shield (bare) wires from all sensor cables should be connected together and terminated at the recorder chassis ground screw above motherboard (a separate piece of wire may be connected to the shield wires with a wire nut to extend to the chassis ground screw).

Exploded View

