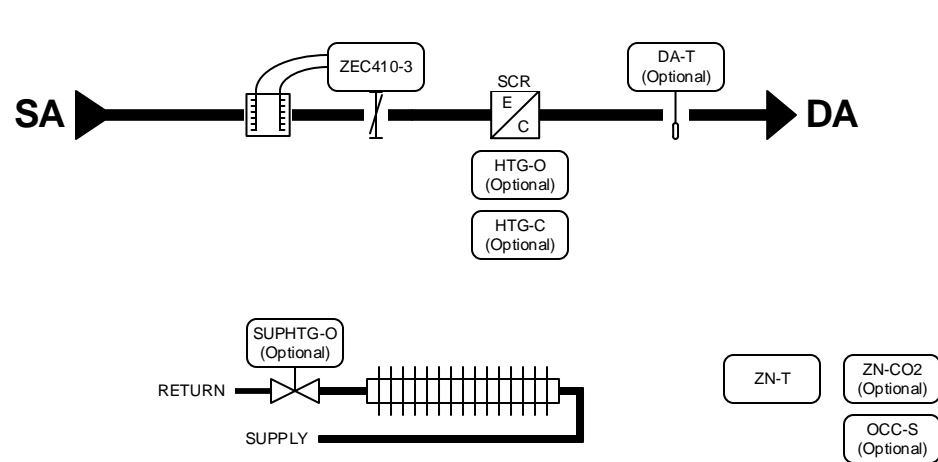
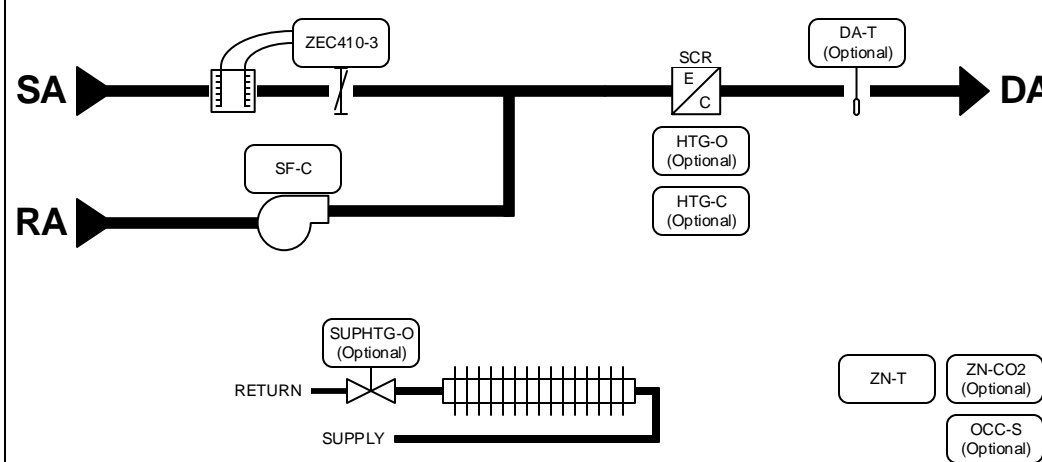


## Multizone Unit - VAV with Proportional Reheat Control

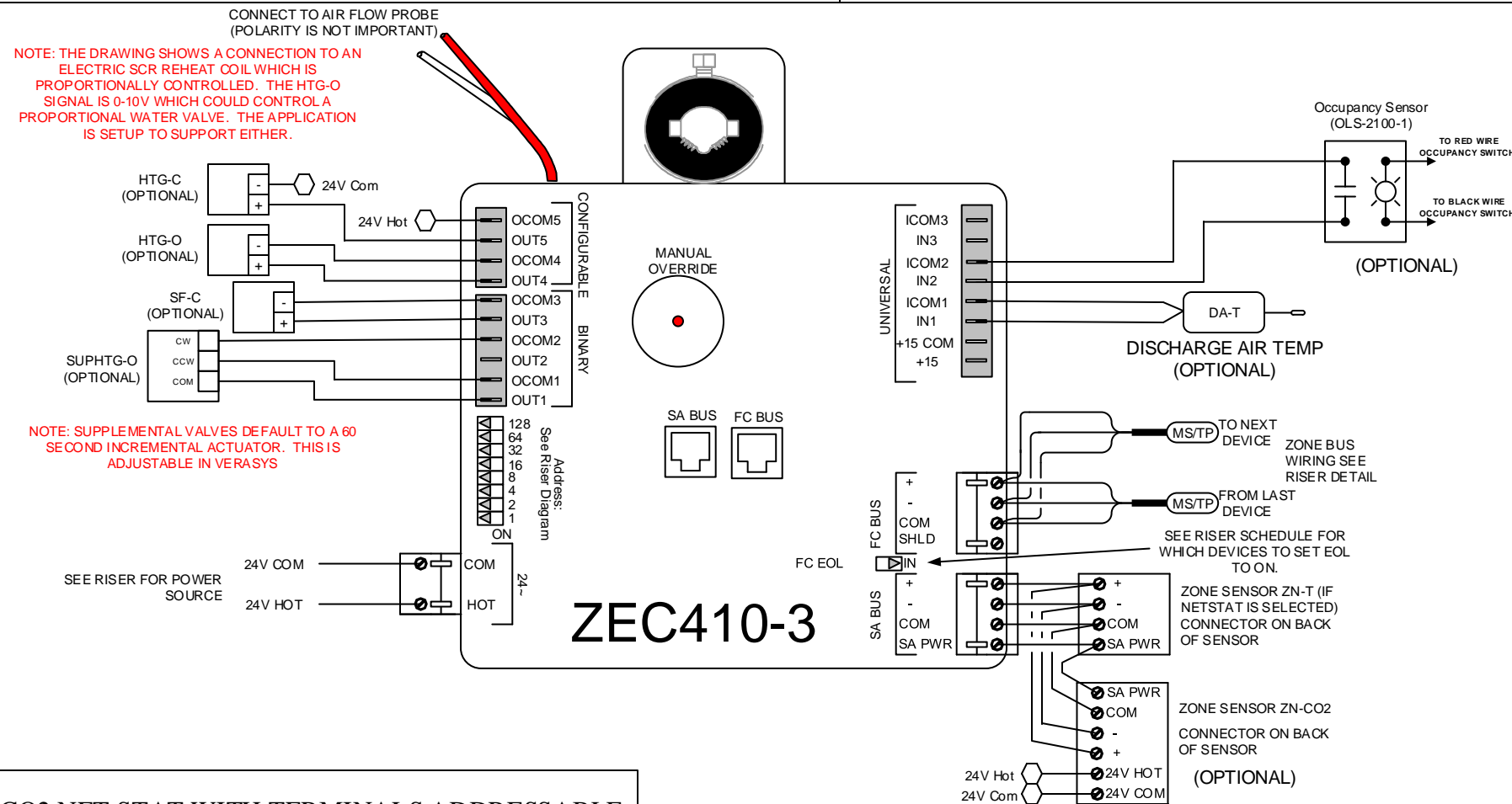
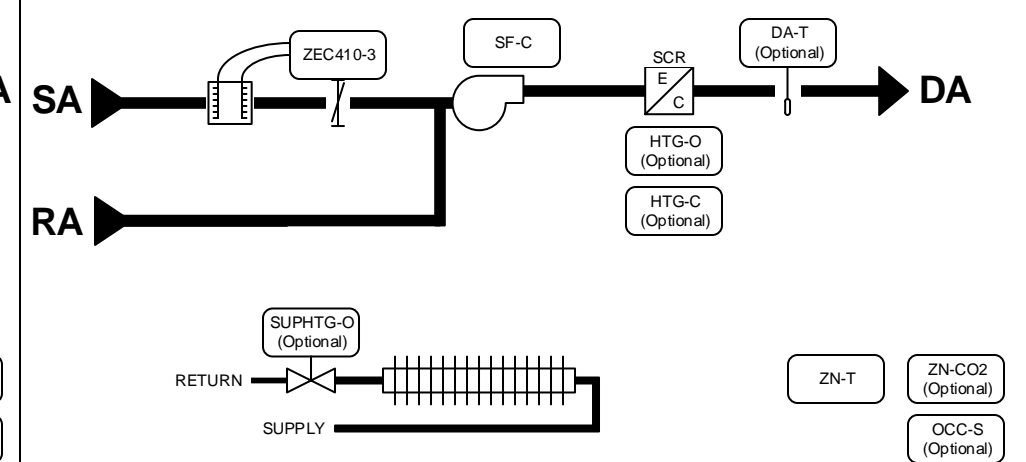
### VAV with No Fan



### VAV with Parallel Fan



### VAV with Series Fan



**OCCUPIED MODE:** WHEN THE ZONE TEMPERATURE IS BETWEEN THE OCCUPIED HEATING AND COOLING SETPOINTS (INSIDE OF THE BIAS), THE PRIMARY AIR DAMPER WILL BE AT THE MINIMUM CFM AND THERE WILL BE NO MECHANICAL HEATING. ON A RISE IN ZONE TEMPERATURE ABOVE THE COOLING SETPOINT, THE PRIMARY AIR DAMPER WILL INCREASE THE CFM AND THERE WILL BE NO MECHANICAL HEATING. ON A DROP IN ZONE TEMPERATURE BELOW THE HEATING SETPOINT, THE SUPPLEMENTAL HEATING COIL WILL BE FULLY UTILIZED BEFORE THE REHEAT HEAT COIL IS ENABLED, THE DAMPER IS CONTROLLED TO PROVIDE A MINIMUM CFM. NOTE: THE BOX REHEAT AND SUPPLEMENTAL REHEAT IS AN OPTION TO HAVE ON THE BOX. IF NEITHER IS SELECTED YOU HAVE A COOLING ONLY BOX.

**UNOCCUPIED MODE:** WHEN IN THIS MODE, WHILE THE ZONE TEMPERATURE IS BETWEEN THE UNOCCUPIED HEATING AND COOLING SETPOINTS (INSIDE OF THE BIAS), THE PRIMARY AIR DAMPER WILL BE AT THE MINIMUM CFM, THERE WILL BE NO MECHANICAL HEATING. ON A RISE IN ZONE TEMPERATURE ABOVE THE UNOCCUPIED COOLING SETPOINT, THE PRIMARY AIR DAMPER WILL INCREASE THE CFM (IF AVAILABLE), AND THERE WILL BE NO MECHANICAL HEATING. ON A DROP IN ZONE TEMPERATURE BELOW THE UNOCCUPIED HEATING SETPOINT, THE SUPPLEMENTAL HEATING COIL WILL BE FULLY UTILIZED BEFORE THE REHEAT HEAT COIL IS ENABLED, THE DAMPER WILL BE AT THE MINIMUM CFM.

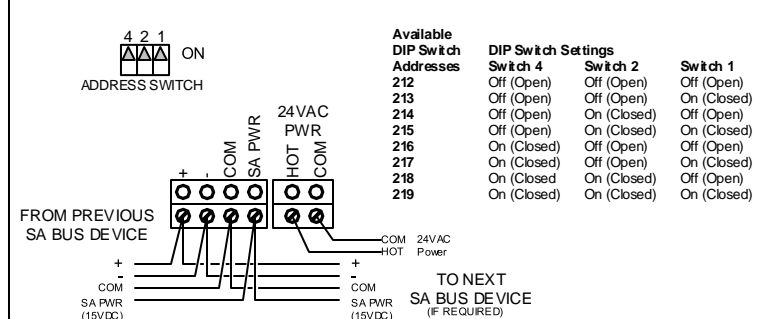
**UNIT ENABLE:** A NETWORK UNIT ENABLE SIGNAL WILL CONTROL THE MODE OF THE BOX.

**FAN CONTROL(OPTIONAL):** PARALLEL FAN - UPON A CALL FOR HEAT THE FAN WILL CYCLE ON. ALL OTHER STATES IT WILL BE OFF. SERIES FAN - DURING THE OCCUPIED MODE THE FAN WILL RUN CONTINUOUSLY. DURING THE UNOCCUPIED MODE IT WILL CYCLE ON WITH A CALL FOR HEATING OR COOLING.

**OCCUPANCY LIGHTING SWITCH (OPTIONAL):** AN OCCUPANCY LIGHTING SWITCH CAN BE ADDED TO THE BOX, TEMPORARILY SETTING THE VAV BOX TO STANDBY MODE WHEN THE OCCUPANCY IS NOT BEING SENSED. WHEN THE BOX SENSES OCCUPANCY, THE ZONE WILL SWITCH BACK TO OCCUPIED. STANDBY MODE USES STANDBY TEMPERATURE SETPOINTS THAT ARE SLIGHTLY HIGHER OR LOWER THAN THE OCCUPIED COOLING OR HEATING SETPOINTS RESPECTIVELY. THE VAV BOX WILL ALSO USE UNOCCUPIED FLOW SETPOINTS IN ADDITION TO THE LOW TEMPERATURES.

**DEMAND CONTROL VENTILATION (OPTIONAL):** WHEN ZONE CO2 SENSOR(S) ARE WIRED TO THE BOXES TO SENSE THE AIR QUALITY IN THE ZONE, THE MINIMUM DAMPER FLOWS ARE PROPORTIONALLY RESET BASED ON AN AIR QUALITY (CO2) SETPOINT. THE RESET OF THE DAMPER MINIMUM FLOWS DO NOT EXCEED THE MAXIMUM VALUE THAT THE USER SETS. THE CO2 SENSOR WITH THE HIGHEST VALUE WILL DETERMINE THE RESET IF MORE THAN ONE ARE WIRED UP.

### CO2 NET STAT WITH TERMINALS ADDRESSABLE



Drawing Title <b>VAV with Incremental Reheat Control</b>							
Project Title		Branch Information		CONTRACT NUMBER		DRAWING NUMBER <b>ZEC410-2</b>	
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Sales Engineer	Project Manager	Applicat on Engineer	DRAWN	BY	DATE	APPROVED	DATE