

SUMMER MODE

During summer mode the chilled water entrance valve will be controlled via either, chilled water differential pressure, chilled water flow or minimum control valve position.

The Building Entrance Chilled Water Control valve shall modulate to maintain the Differential Pressure set point (adjustable) as sensed by a 0- 50 PSID Differential Pressure Transmitter located near the most hydraulically remote coil in the building. A flow meter will be provided to measure the total building chilled water flow and the Building Entrance Chilled Water Control valve will modulate from a minimum position to maintain the Differential Pressure set point. The flow will be limited to the maximum chilled water flow setpoint for each building

End switch contacts will be provided to monitor the Building Entrance Chilled Water control valve in the full closed or full open position. A chilled water return pressure transmitter (0-100 psig) will be provided at the highest point of the building chilled water system.

ISOLATION MODE

A manual command by supervisory personnel will enable chilled water isolation mode. The Building Entrance Chilled Water Control VALVE WILL BE RAMPED TO A CLOSED position (TIME ADJUSTABLE) and when the closed position contacts of the Building Entrance Chilled Water Control valve make, the chilled water return isolation valve will be activated and the return isolation valve will close.

The return Isolation valve will be provided with end switch contacts to monitor the full open and full closed position of this valve.

Upon deactivation of isolation mode the return isolation valve will be deactivated and the return isolation valve will slowly open. When the return isolation valve open contacts make the Building Entrance Chilled Water Control valve will ramp to the required operating position and system operation will resume under normal controls operation.

WINTER MODE:

The chilled water entrance control valve shall be modulated either by chilled water flow or control valve minimum position. The differential pressure control loop will be suspended in winter mode if building load is insufficient to maintain proper control.

ALARMS:

If the differential pressure sensor fails or the chilled water flow meter fails then the control valve shall be commanded to a default safe position (adjustable) and an alarm diagnostic point activated to notify personnel of control sensor failure.

For Btu metering if any of the following points fail then a diagnostic alarm shall be generated to notify personnel of loss of ability to accurately report Btu consumption; chilled water supply temperature, chilled water return temperature, chilled water flow. Upon a metering diagnostic alarm, the Btu consumption shall be set to zero.