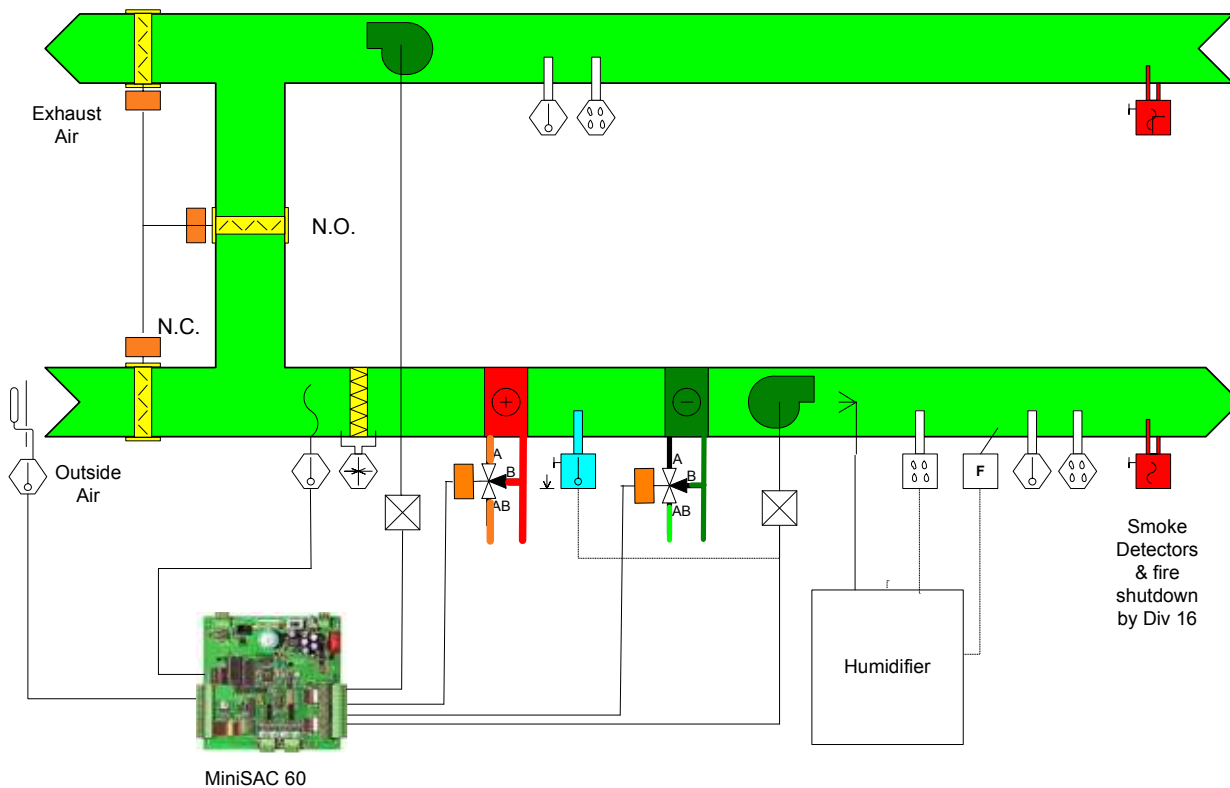


Air Handling Unit Controller



Description

AHU Controller provides integrated control of built up or packaged air handling unit - either constant volume or VAV, with or without heat recovery. Controller can be integrated into an Empire Controls DDC system, either at time of installation or at a later date. LCD, setpoint adjustment knob, time of day scheduling/Real Time Clock features are optional. Unlike controllers provided by fan salesmen, the Empire AHU Controller offers complete design flexibility and proper documentation, and delivers energy savings by using P + I control of both heating and cooling functions. The Empire controller can be configured to handle any configuration.

Guide Specification

Products

2.x Air Handling Unit Controller Kit

Air Handling Unit Controller Model BNR-AHU complete with duct temp, humidity and static pressure sensors, OAT sensor, modulating control valve assemblies, spring return modulating dampers, control relays, setpoint adjustment knob, control relays, transformer and liquid crystal display as manufactured by Empire Controls Limited of Woodbridge, Ph 905-264-7282, Fax 905-850-8564, empire@empirecontrols.com. Controllers incapable of controlling modulating valves or network communications are not acceptable.

Execution - Sequence of Operations

3.4.x Air Handling Unit Controller Kit

In Occupied Mode, the Empire controller commands fan continuously ON, gradually opens mixing dampers to minimum outside air position, and cycles and/or modulates the heating, free cooling and mechanical cooling as required to maintain supply air temperature. Controller maintains a zero energy deadband between the Heating Setpoint and Cooling Setpoint. (Contact Empire for a more detailed sequence appropriate to your specific application.

In Unoccupied Mode, Empire controller commands fan ON intermittently as required to maintain space temperature no cooler than the Unoccupied Heating Setpoint and no warmer than the Unoccupied Cooling Setpoint. Mechanical cooling is locked out. During Unoccupied Mode, the Minimum Outside Air setting is set to "zero".

Mount controller enclosure on wall, and provide 24 volt power. Connect sensors, damper and valve actuators and start/stop points to controller. Interlock starters with smoke detectors, freezestat, firestat and fire alarm shutdown relay. Check operation of fans, sensors, dampers, valves, compressors and heat exchangers. Check operation of safety circuit.

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