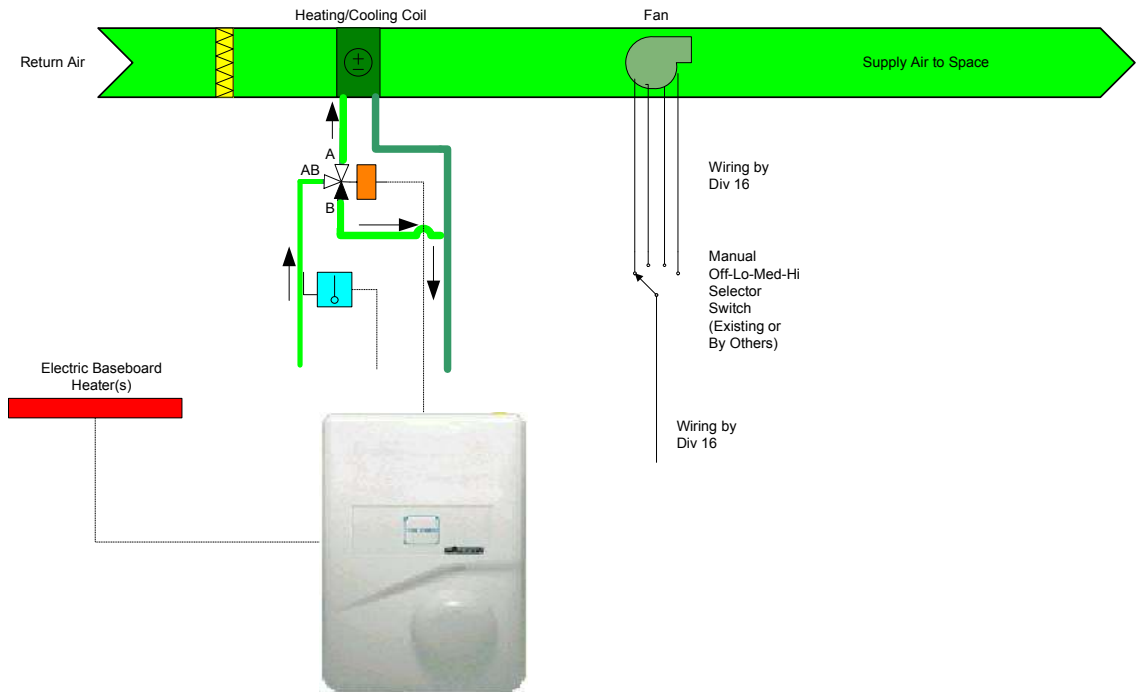


Two Pipe Fan Coil Controller



Description

Electronic controller/thermostat provides affordable, but very stable and energy efficient control of two pipe changeover type fan coil units and electric baseboard radiation. Controller can handle either two position or modulating valves. Baseboard heater may be either ON-OFF or modulating through an SCR. Controller can be integrated into a DDC system, either at time of installation or at a later date. Can be configured for operation in Celsius of Fahrenheit. Fan control, LCD, setpoint adjustment knob, time of day scheduling/Real Time Clock features are optional.

Guide Specification

Products

2.x Two Pipe Fan Coil Controller Kit

Two Pipe Fan Coil Controller, Model BNR-2PFC complete with space sensor, optional setpoint adjustment knob, control valve assemblies, control relays, transformer and without optional liquid crystal display as manufactured by Empire Controls Limited of Woodbridge, Ph 905-264-7282, Fax 905-850-8564, empire@empirecontrols.com. Stats incapable of controlling modulating valves or network communications are not acceptable.

Execution - Sequence of Operations

3.4.x Two Pipe Fan Coils

Each fan coil has a hydronic control valve, and an electric baseboard heater, manual speed selector switch and "Empire" networkable thermostat and changeover aquastat. Typically, the central plant will provide to each fan coil unit hot water in winter, and chilled water in summer.

For each fan coil unit, the Empire controller shall cycle the heating/cooling valve and electric baseboard heaters as required to maintain space temperature at setpoint. The changeover aquastat shall monitor the temperature of the supply water, and close when hot water is supplied, and open when chilled water is supplied. The controller shall monitor the position of the Changeover Aquastat, and set the action of the hydronic valve accordingly.

When hot water is supplied, the Empire controller opens/closes the (heating) valve as the first stage of heating, and turns the electric baseboard heater on/off as the second stage of heating, as required to maintain the space temperature at the Heating_Setpoint.

When chilled water is supplied, the Empire controller opens and closes the (cooling) valve as required to maintain the space temperature at the Cooling Setpoint, and cycles the electric baseboard heater(s) on and off as required to maintain the space temperature at the Heating_Setpoint. Night Setback and Cooling Setup are not implemented. The fan speed is manually selected using the Off-Lo-Med-High speed switch.

Mount stat on wall, and provide 24 volt power. Connect valves and radiation to controller. Check operation of valves.

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