

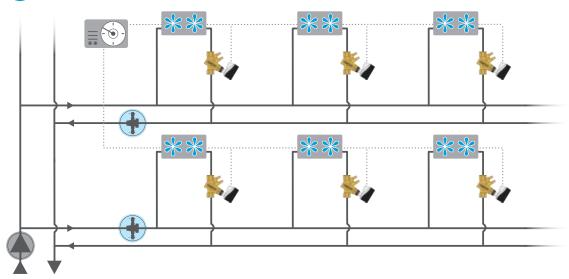
A Griswold Controls LLC./FlowCon International Company

Fan Coil Units

with Pressure Independent Control (PICV)



















System Functionality:

The water-based FCU is a simple coil/fan device. The coil airflow is normally constant or limited to 3 different speeds controlled by the user. Hence, the return water temperature often fluctuates depending on season and corresponding cooling or heating requirements. In case of modulating control, it is recommended to install a Pressure Independent Control Valve (PICV) on each FCU to ensure optimal ΔT , system energy efficiency and room comfort. The PICV will ensure that any pressure fluctuation in the system will not affect flow regulation and overflow, underflow and starvation are eliminated.

Requirements:

The PICV will provide 100% authority and flow regulation regardless of system pressure changes and automatically provide the required flow to the FCU and the actuator will provide modulating control securing proper flow balance and consequently also thermal performance at all times, even at partial load.

Solutions:

The solution is to mount a PICV on every FCU and FlowCon offers:

- FlowCon Green / GreEQ (adjustable composite insert)
- FlowCon Essentia (built-in regulation unit).

Benefits:

- Assures correct flow for each FCU automatically also at partial loads - securing occupant comfort
- Serviceable insert-design solution (Green / GreEQ)
- Energy efficiency with regulation starting at only 10 kPaD (Essentia) or 16 kPaD (Green / GreEQ)
- Flexible solution with stepless setting to minimum 41 defined max. flows
- Electrical actuators w. selectable control mode, linear or equal% or alternatively thermal ON/OFF actuators
- Accurate setting over multiple rotations full stroke
- · Cost savings due to reduced commissioning time
- True PICVs real pressure independency at all flow rates and all actuator positions.



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