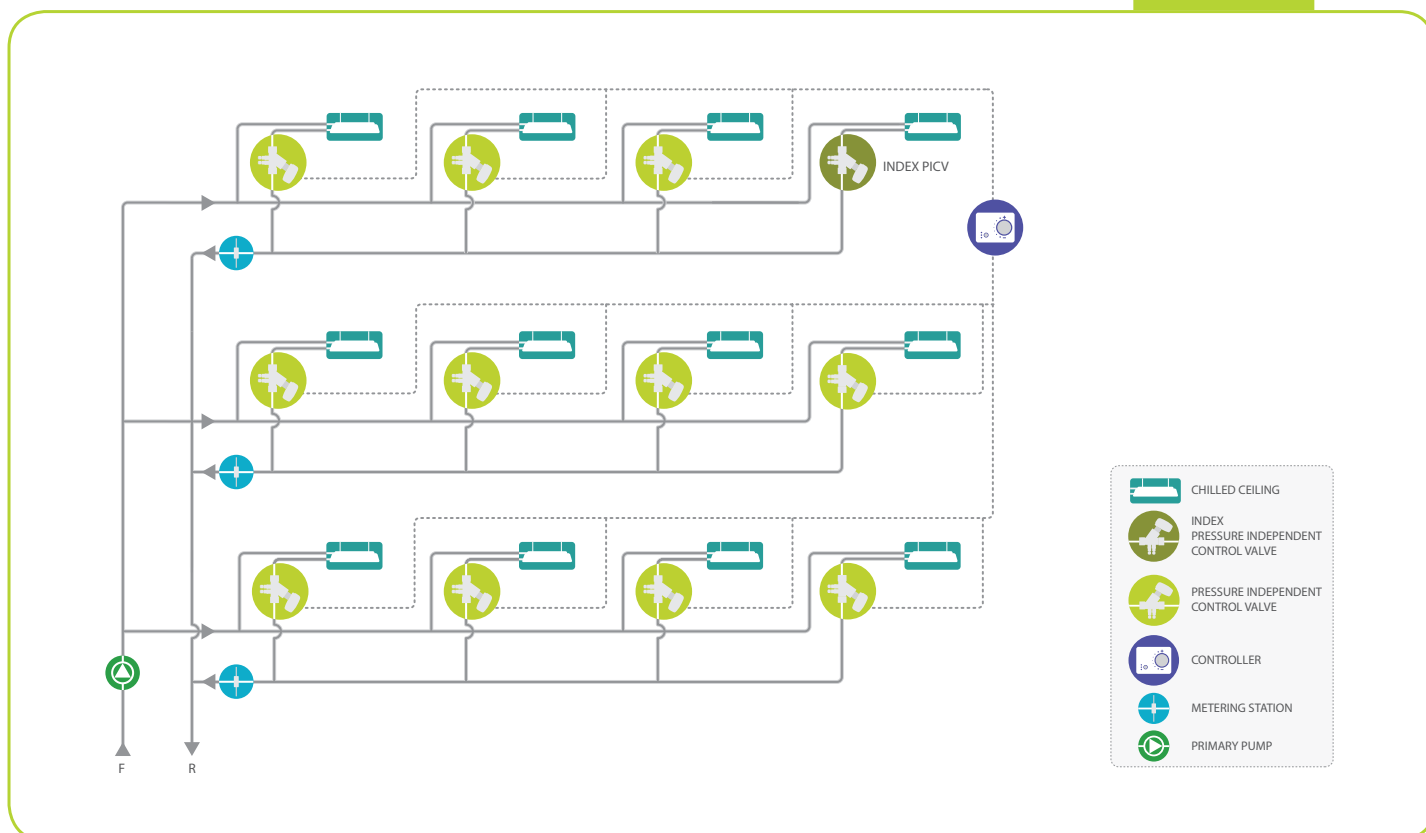


Chilled Ceilings with PICV control



Function

The room temperature is controlled by a controller connected to the PICV actuator. The control can either be modulating or On/Off depending on the system layout. On/Off control is often selected on passive chilled ceiling to avoid laminar flow which lowers the cool transfer from the water to the coil.

Benefits

- The PICV ensures balancing of the flow and eliminates the use of both static balancing valves and differential pressure control valves.
- Simple installation as only the PICV is required with no need for additional pressure or flow balancing valves.
- Low total pressure loss in the system due to simple design.
- The flow can be set directly on the PICV without the need of a manometer or a commissioning unit.
- The differential pressure only needs to be checked at the PICV placed at the index point, or at the end of every branch.

Considerations

- A metering station can be placed on the branch if additional flow verification is required by the witness authority
- The index valve will, in applications such as this with identical design and coil performance, be the one furthest from the pump, but it can be elsewhere in other layouts
- In theory, PT-plugs are only needed on the index PICV, but for commissioning and diagnostic purposes, it can be useful to have PT-plugs on every valve.

