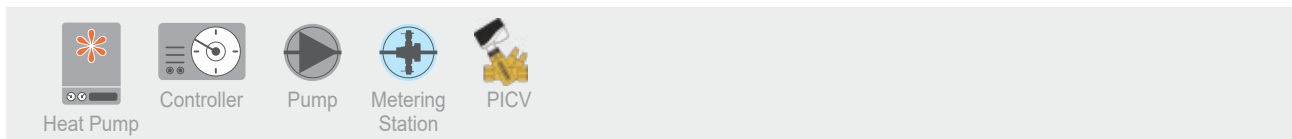
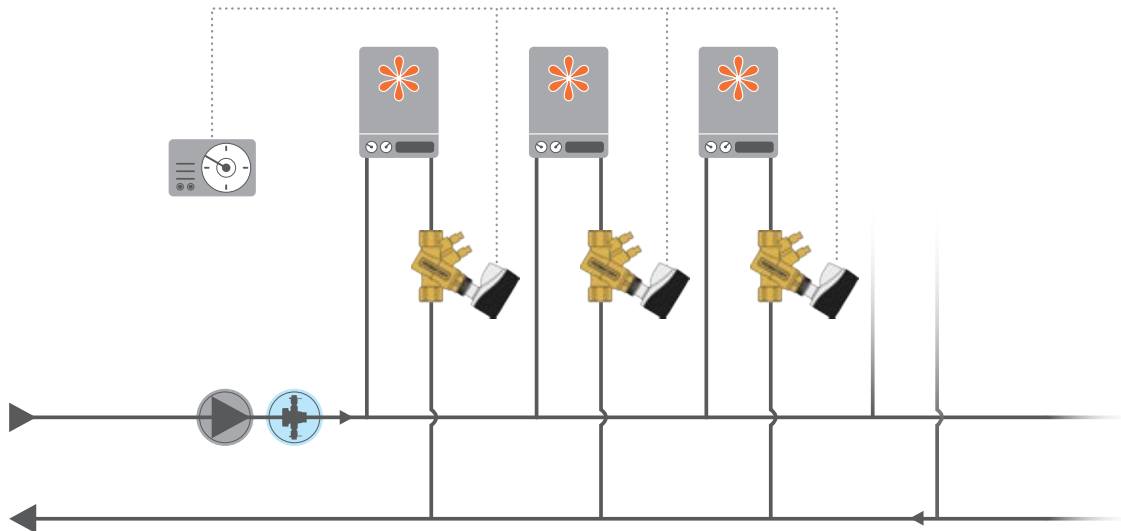


Heat Pumps

with Pressure Independent Control (PICV)



System Functionality:

A heat pump pulls warm air through a built-in heat exchanger, which absorbs the heat, pumps it up via compression to higher temperature and heats the waterside of the heat exchanger. The hot water is then used for room heat or passed to the building's hot water tank for domestic use. This way it keeps indoor temperature warm in the winter and cold during summer. Without proper balance and control, flow rates will fluctuate as pressure fluctuates with the result of inaccurate room temperature, dissatisfied users and increased energy consumption. This can be prevented by installing a PICV on every heat pump. PICVs will help maintain correct flow rate at any time of operation and assist in minimum energy consumption.

Requirements:

The PICV will react to system pressure changes and regulated the water flow to required flow by adjusting the actuator position. This helps the heat pump to be accurately controlled even with pressure changes and at reduced loads.

Solutions:

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

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

Benefits:

- Assures correct flow for each unit automatically - also at partial loads - securing optimal comfort
- Serviceable insert-design solution (Green / GreEQ)
- Energy efficiency with regulation starting at only 10 kPaD (Essentia)
- 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
- Cost savings due to reduced commissioning time
- True PICVs - 100% authority and pressure independency at all flow rates with accurate actuator control.

FlowCon PICVs

