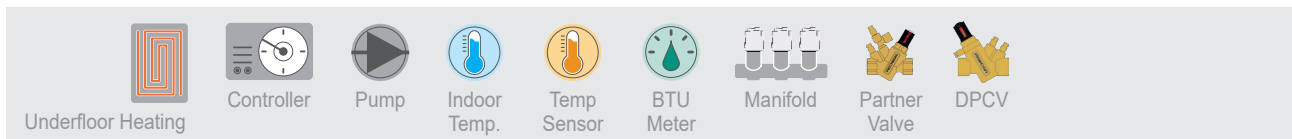
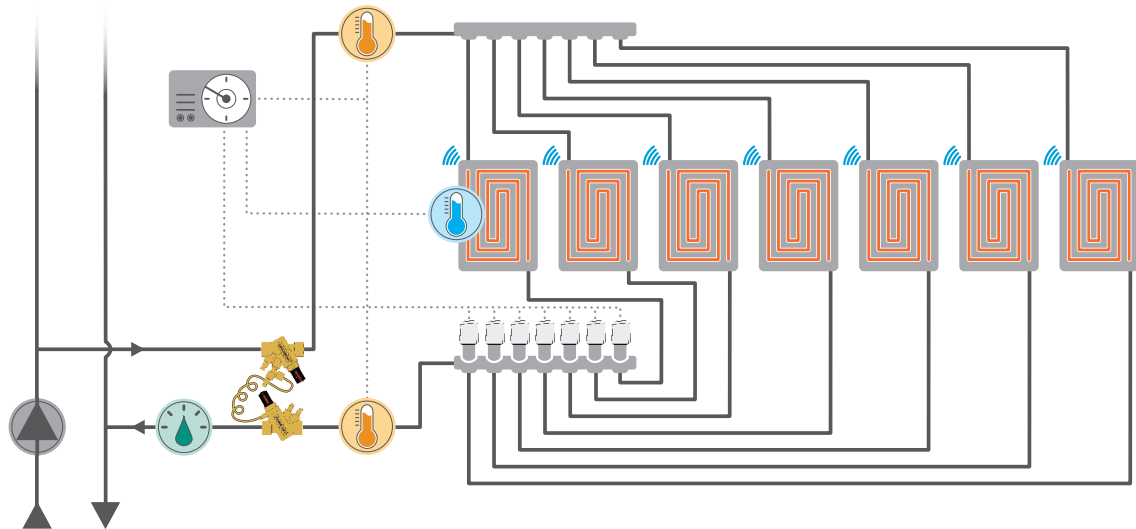


# Underfloor Heating - Manifold

## with Differential Pressure Control (DPCV)



### System Functionality:

In well-insulated buildings, water-based underfloor heating provides several advantages over conventional radiators when considering acceptable room temperature. Heat is distributed more evenly, cold feet are avoided and consequently the indoor temperature may be reduced by 1° or 2°C without feeling cold, resulting in energy savings. Underfloor heating will also work at lower supply temperature and low flow rates. Room temperature is controlled by thermal actuators, but without further system balancing, poor control, noise and difficulties to close may become a problem. This can be solved by installing a Differential Pressure Control Valve (DPCV) as zone valve in connection with each manifold.

### Requirements:

The DPCV will absorb system pressure changes and maintain a constant pressure,  $\Delta p_C$ , in the zone helping the system to balance and be accurately controlled. With controlled flow to the zone the thermal actuators

will achieve controlled temperature and maintain a low fluid velocity to get full use of the water heat energy.

### Solutions:

The solution is to mount a DPCV and a Partner Valve on every manifold and FlowCon offers:

- FlowCon SDP (pre-set 10, 20 or 30 kPaD) or
- FlowCon EDP (adjustable 5-50 kPaD)
- FlowCon Composite, E-JUST, QuickDisc® and S-JUST (partner valves).

### Benefits:

- Security of a defined  $\Delta P$  available for each zone - also at partial loads
- Easy-to-use compact solution due to simple construction
- A serviceable solution due to insert-design
- Energy efficiency with regulation starting at only 3 kPaD
- Cost savings - reduced time to balance and commission
- A proven technology
- Noise reduction.

FlowCon Partner Valves

FlowCon DPCVs



AB Composite



AB E-JUST



QuickDisc®



S-JUST



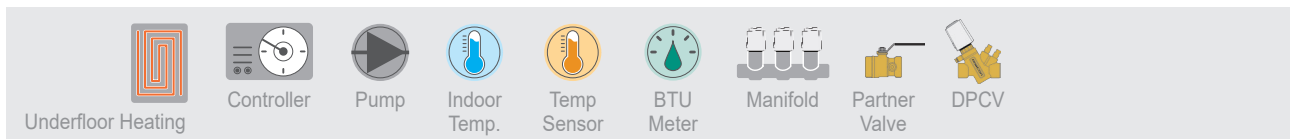
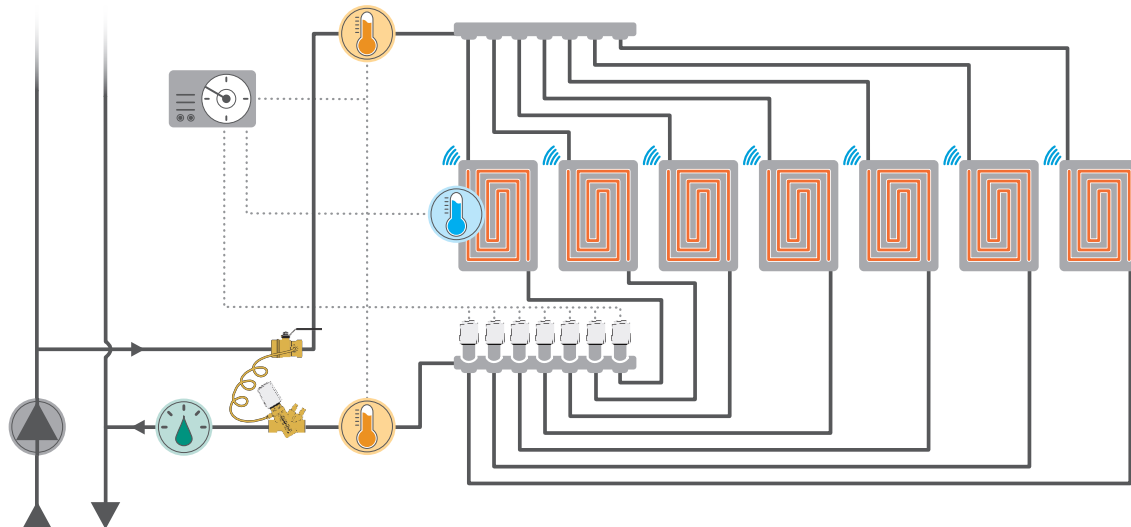
EDP



SDP

# Underfloor Heating - Manifold

## with Differential Pressure Control (DPCV) - Timer Controlled



### System Functionality:

In well-insulated buildings, water-based underfloor heating provides several advantages over conventional radiators when considering acceptable room temperature. Heat is distributed more evenly, cold feet are avoided and consequently the indoor temperature may be reduced by 1° or 2°C without feeling cold, resulting in energy savings. Underfloor heating will also work at lower supply temperature and low flow rates. Room temperature is controlled by thermal actuators, but without further system balancing, poor control and noise may become a problem. This can be solved by installing a Differential Pressure Control Valve (DPCV) as zone valve in connection with each manifold which also allows energy saving night reduction.

### Requirements:

The DPCV will absorb system pressure changes and maintain a constant pressure,  $\Delta pC$ , in the zone helping the system to balance and be accurately controlled. With controlled flow to the zone the thermal actuators will achieve controlled temperature and maintain a low fluid velocity to get full use of the water heat energy.

### Solutions:

The solution is to mount a DPCV and a Partner Valve on every manifold and FlowCon offers:

- FlowCon ADP (Adjustable Insert)
- FlowCon Partner Ball (Partner Valve).

### Benefits:

- Combined  $\Delta P$  and max flow limiter in one unit - incl. ON/OFF control
- Flexible solution with minimum 41 different flow/pressure settings
- An easy-to-use solution and compact design
- A serviceable solution due to insert-model
- Energy efficiency with regulation starting at only 3 kPaD
- Cost savings - recued time to balance and commission
- A proven technology
- Possible automatic night reduction.

┌ FlowCon Partner Valve ─

┌ FlowCon DPCV ─



Partner Ball



ADP