

## OEM Alpha direct Balance

### Does the Alpha direct Balance base station replace conventional, manual hydraulic balancing?

The Alpha direct Balance System complies with the stipulations imposed by Germany's EnEV regulation and BAFA (the German Federal Office for Economic Affairs and Export Control) and therefore qualifies for grants. According to the TÜV certificate, it is at least equivalent to manual hydraulic balancing.

### How does hydraulic balancing work?

The algorithm identifies each circuit's heating requirements and evenly spreads the intervals at which the thermal valve actuators open over a defined period of time. As a result, all circuits are supplied with adequate heat, even in systems that are NOT hydraulically balanced, because not all circuits are supplied simultaneously. This method only works in systems such as panel heating that are slow to react.

### Can any thermostats be used with the base station?

All standard thermostats are compatible with the Alpha direct Balance System.

### Is the base station capable of cooling?

The Alpha direct Balance System also has switching components in the base station. These allow the thermostat signals to be inverted and transmitted to the valve actuators. This characteristic means that Alpha direct Balance is also ideal for cooling applications.

### Can the base station cool with any thermostats?

The base station performs the cooling function. Any standard heating thermostats can be used for both cases (heating/cooling).

### Can the Alpha direct Balance open the thermostat valve periodically during the summer to stop it from getting stuck?

The Alpha direct Balance System has a valve protection function. Regardless of the season, this opens the valves briefly if they have been inactive for a certain amount of time.

### Do circuit control valves or other balancing devices need to be fitted to the distribution network?

Circuit control valves might be required depending on local conditions. The Alpha direct Balance system balances the heating loops in one manifold with each other and is not suitable for balancing several manifolds with each other.

### Are flow indicators still required for the Alpha direct Balance System?

Flow limiters are not required when using the Alpha direct Balance System. We recommend keeping the current setting as it is, or setting all flow limiters to full flow.

### Does the Alpha direct Balance need to be initialised or calibrated?

No. The system operates autonomously. No initialisation or calibration are required.

### What happens when the base station is switched on?

After the base station is switched on, the algorithm spends the first 30 minutes analysing the thermostats' outputs. Once a cycle is identified, this heating zone is included in the balancing process. If no cycle is detected,

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this heating zone is not part of the load balancing process and the unmodified thermostat signal is transmitted to the valve actuator. The thermostat outputs continue to be analysed and, when a cycle is detected, the heating zone is included in the balancing process.

### What happens exactly at the base station and thermostat when there's a switch from heating to cooling?

The base station has a CO input. If this is activated, the base station inverts the signals from the thermostats and transmits them to the valve actuators. An LED indicates that cooling mode is active.

### Can heating zones be connected?

Multiple heating zones are not meant to be connected. It is the electrician's responsibility to ensure that the whole system is safe.

### What do the LEDs indicate?

Function	Colour	Explanation
Boiler	Green	<b>On:</b> Boiler active <b>Off:</b> Boiler inactive
Pump	Green	<b>On:</b> Pump active <b>Off:</b> Pump inactive <b>Flashing:</b> Temperature limiter/dew point sensor active
Voltage	Green	<b>On:</b> Device running <b>Off:</b> Device not running <b>Flashing:</b> Commissioning mode active
Fuse	Red	<b>On:</b> Faulty fuse
Changeover	Blue	<b>On:</b> Cooling mode active <b>Off:</b> Heating mode active
Heating zones (HZ)	Green	<b>On:</b> HZ active <b>Off:</b> HZ inactive <b>Flashing:</b> HZ active; no load balancing

### Can a boiler be controlled?

The Alpha direct Balance base station has an output to activate a heat generator.

### Is the Alpha direct Balance System compatible with other thermostat components with their own controls?

We cannot comment on thermostat components made by third parties. The Alpha direct Balance System is compatible with all standard components. Furthermore, other thermostat components don't need to be combined with the Alpha direct Balance System because it can already perform room-by-room temperature control by itself.