

PEXATHERM

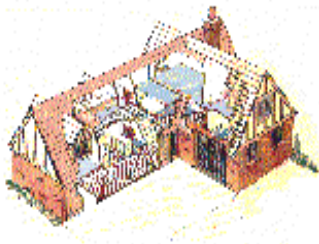
Advanced Temperature Control

DELTA

Multi-Function Controller with
Weather Temperature Compensation



The Delta gives optimum temperature control with a mixed heating system: underfloor heating on the ground floor, radiators on the first floor, and domestic hot water.



Progress in temperature control technology follows from the computer and electronics industry. Great benefits of comfort, fuel savings and value can now be had by all home owners. The advanced features of the DELTA are an essential part of a modern heating system.

Well insulated modern buildings respond slowly to changes in outside temperature, resulting in overheating. Multi-Function true weather compensation controls, such as the DELTA, provide accurate heat output at all times. Thus providing high level of comfort, flexible response and energy efficiency.

Through its air and water temperature sensors, the DELTA simultaneously regulates boiler, radiator, underfloor heating and domestic hot water temperature. It features a digital clock for multiple time and temperature settings, domestic hot water priority heating option, frost protection, pump overrun and protection, and much more.

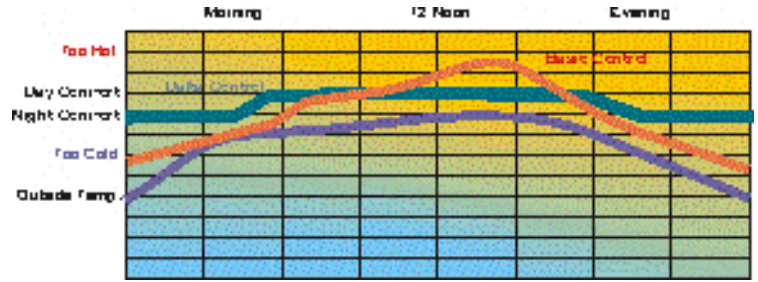
DELTA Main Features

- Separate boiler and heating weather compensation curves.
- Underfloor or radiator compensation via 3 and 4-way mixer.
- 7 Days digital timer for heating and domestic hot water.
- Multi-pump control for heating and domestic hot water.
- Domestic hot water temperature control from the Delta.
- Continuous frost protection, economy and holiday modes.
- Easy to install enclosure panel with overrideswitches.
- Pump overrun facility with pump protection.
- Optional internal sensor and remote setting.
- Adjustable boiler and outside temperature settings.
- Built-in relay switches for easy wiring.
- Supplied complete with water and air sensors.
- LED panel indicator for system operation mode.
- Rotary control knobs for easy adjustments.



The Delta Options

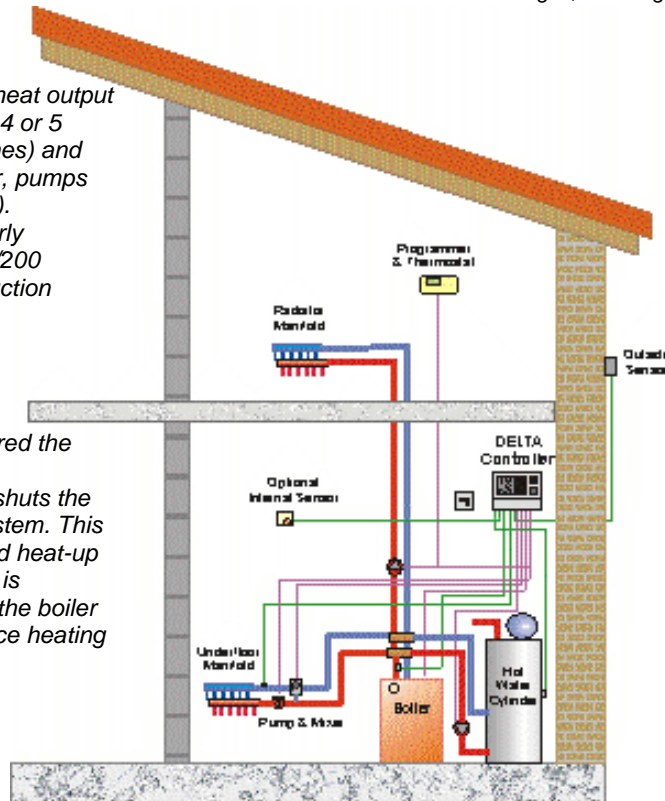
There is a choice of Delta controllers to suit any heating system and boiler. The Delta 22 is a heating controller only (combi's). The Delta 23B controls the heating system and the hot water cylinder. This is the most used Delta. The Delta 223B controls two boilers, the heating and the domestic hot water cylinder. The Delta 333 adds two extra heating area zones to an existing Delta installation.



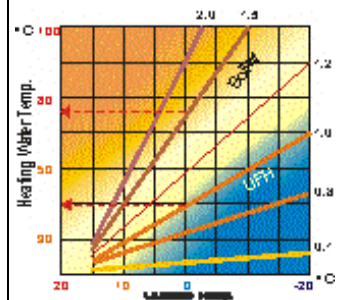
Modern controls are an essential element in improving efficiency while maintaining high comfort levels. The following diagrams explain the principles behind the operation of the Delta controller. A steady temperature is maintained by the Delta, irrespective of outside temperature changes, resulting in excellent comfort and fuel savings.

The DELTA modulates heat output by taking readings from 4 or 5 temp. sensors (green lines) and sending signals to boiler, pumps and valves (purple lines). All connections are clearly indicated in the WG100/200 enclosure and the instruction supplied with the Delta.

When hot water is required the Delta sets boiler to high temperature mode and shuts the mixer on the heating system. This gives the cylinder a rapid heat-up time. Once the cylinder is satisfied, the mixer and the boiler are reset to a lower space heating temperature.



The Compensation Slope



The Delta adjusts the heat output in relation to outside temperature for boiler and heating system. This allows modern boilers, especially modulating and condensing boilers, to operate most efficiently at all times. The Delta addresses boiler overshoot and cycling which wastes fuel. The boiler is modulated between high and low temperature setting by the Delta dependant on outside temperature heat demand.

The Complete Control Package

IPPEC supplies all the components needed for the control system. The Delta range includes all the required sensors. Control relays are built into the Delta avoiding complicated wiring of motorised valves and micro-switches to the boiler. IPPEC provides schematics and wiring diagrams with each system supplied as part of the project dossier.

Enclosure Panel WG100/200

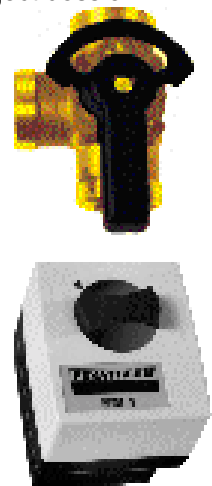
The specially designed enclosure panel makes installation so much easier and helps with diagnostic procedure. The panel that houses the Delta measures 300 x 270 x 80 mm.

Minimix Valves and Pumps

Three and four way brass mixer valves, in several sizes (3/4", 1", 1/4") are controlled by the Delta via the servo-motor. IPPEC supply heating and domestic hot water pumps in several capacities which are controlled by the Delta.

Servo Motors

The PEXATHERM range of servo-motor, controlled by the Delta fit directly to the 3 or 4-way mixer valves. Alternative an all-in-one four-way mixer, pump and pressure relief set makes boiler connection even easier.



IPPEC Systems Ltd

66 Rea Street South, Birmingham B5 6LB, U.K
Tel. 0121 622 4333, Fax. 0121 622 5768, E-mail: www.ippec.co.uk.