

Flue thermostat

Technical data

Single thermostat 50–300°C

For fitting on outside of flue

Change-over switch

Capillary tube, length 90 cm

Probe diameter 4.3 cm

Probe diameter 0.6 mm

Resistive load 16 A at 250 V
 10 A at 380 V

Inductive load 5 A at 220 V
 1 A at 380 V

Function

Used to start and stop the charging pump between boiler and storage tank.

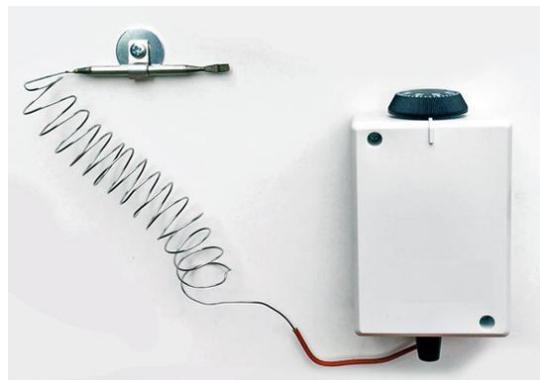
The flue thermostat starts the pump as soon as the temperature of the smoke pipe rises to a predetermined level, after firing starts.

In wood-fired boilers with self-circulation valves, it prevents cold water cooling the bottom of the boiler when firing starts. The boiler reaches operating temperature more quickly. A suitable setting is approx. 50–120°C. (80–100°C)

When the log fire goes out, the pump stops as soon as the flue cools down.

Note With only a water thermostat, which starts the charging pump at 80°C, the following occurs if both the boiler and the tank are charged up to 90°C:

The pump does not stop until the whole of the tank and the boiler have cooled down to approximately 75°C because of the temperature difference in the thermostat. This destroys the layering in the tank, and allows some of the energy in the water between 75 – 90°C (approximately 30% of the stored energy) to disappear up the flue unnecessarily.

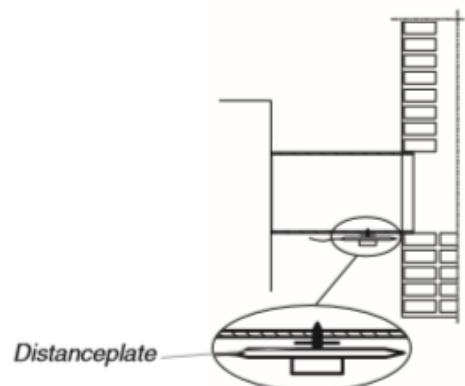


Fitting and connection

The plastic thermostat casing should be fitted in such a way that it cannot be damaged by radiant heat from hot surfaces.

A suitable place is close to the switch, which will shorten the cable-run.

When connecting a boiler without self-circulation, it is necessary to fit a water thermostat. This prevents boiling in the event that embers are left smouldering, and acts as an additional safety feature. This thermostat should be set at about 90–95°C.



Fitting the sensor probe

On boilers with risk of high probe temperatures above 300°C (common on over combusting boilers), the probe should be fitted underneath the flue, with a distance-plate in-between. Never place an unprotected probe directly in the flue-gases.

NOTE: Firing with the damper open can give fluegas temperatures of 600–700°C.

On boilers with low flue-gas temperatures, the probe should be fitted on the side or on the upper part of the flue without distance-plate.

Fit and clamp the capillary tube so that it will not be damaged by carbonising.

Maximum temperature at probe = 300°C.

On units where there is a risk of the flue thermostat overheating, the following example is a good fitting option

Immersion tube is made of 10 mm copper pipe, flattened at one end.

The end has a hole.

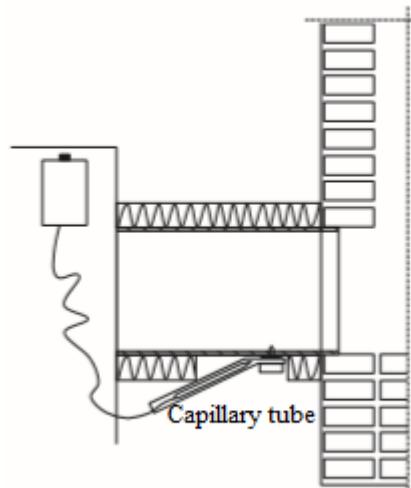
Screw the copper pipe securely to the smoke pipe.

Tip

When fitting kitchen hobs with concealed flues, this installation method makes it possible to replace the thermostat without having to access the flue itself.

NOTE

NEVER install probes or immersion directly in the flue gas duct.



The thermostat probe must NEVER be exposed to temperatures greater than 300°C.

At FIRST firing, check the temperature of the probe by checking for the "clicking noise". Turn the thermostat knob back and forth when the boiler operates at full power.

If the clicking noise occurs above 250°C ---- pull out the probe slightly---- try again.

The task of the thermostat is to start / stop the pump at the beginning / end of firing as quickly as possible. It is not important whether it occurs at a setting of 50 / 80 / 100 / 120.

The most important thing is the optimum function of your unit.

