



ALKON 50-70.



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# ALKON's brain

## E8, the intelligent heating controller

The application and connection of the dedicated **E8** heating controller, permits a decisive **qualitative leap** in boiler management depending of the applied loads. The E8, as well as becoming the window of dialogue with the boiler, thanks to its features, permits the complete management of the C.H. system, exploiting the maximum modulating output and the maximum obtainable condensation.



## Function E8



### Self-adaption

Through the elaboration of data transmitted by the room sensor, this function adjusts the boiler output to the building's characteristics, ensuring a constant monitoring of the indoor temperature on the basis of the variation of the outdoor temperature, keeping in consideration the building's thermal inertia and the contribution of "free" heat (solar radiation, internal heat sources etc).



### Boiler heating Optimization

The heating controller, on the basis of the timer/heating programme set by the user, once the system's characteristics have been evaluated, will activate the function for automatically bringing forward the start of heating so as to ensure that the set temperature is reached at the time requested by the user.



### Fast set temperature

This is obtained by calculating the optimum ignition start-up time. This calculation can be carried out taking into consideration the outdoor temperature or the room temperature.



### Overheating protection

The boiler's safety temperature is controlled via the pumps overrun time in order to get rid of any thermal inertia.



### Multiple zone control

With the same heating control you can control 2 independent circuits with different characteristics, though having ensured all the described functions, including the deep sliding temperature function.

### Programme setting

The heating programmes can be set daily or weekly, with more than one On-Off firing times or temperature reductions during the arch of the day.



### Domestic hot water production

There are many programmes which control the domestic hot water production. You can

choose from the maximum of comfort to the maximum fuel saving. In order to permit the storage cylinder to supply hot water rapidly, the heating controller brings the boiler's temperature to the maximum set value.



### Antilegion

Every 20 heating starts-up or once a week, on Saturday at 01:00 hrs, the storage tank is heated up to 60°C. This function will eliminate any eventual bacterium which have formed in the DHW.



### Frost protection mode

The frost protection operation mode prevents the C.H. heating from freezing by automatically switching heating operation on. In the frost protection mode, the room temperature for all the heating circuits is set to 5°C and the storage tank sensor frost protection is activated when the temperature drops below 10°C.



### Optimisation of DHW (loading pump)

The DHW loading pump is switched on only if the boiler temperature exceeds by 5K the storage tank temperature. It is deactivated when the boiler temperature drops below the storage tank temperature or if the storage tank temperature is higher than the nominal temperature.



### Slope offset (heating slope distance)

The boiler temperature that is required for a

mixed circuit is calculated by adding to the calculated temperature setting for the heating circuit temperature the heating curve distance. The heating curve distance compensates for sensor tolerances and heat loss up

to the mixer.



### Number of burner ignitions



### Burner run hours



### Mixing valve opening time

Based on the characteristics of the servomotor

And more:

- **Management of up to 15 mixed circuits** controlled by the outdoor sensor (refer to accessories).
- **Integration with renewable energy sources** as for example: solar systems and/or solid fuel boilers.
- **0-10 volt signal:** the great flexibility of the E8 also permits the boiler set point to be controlled by an external control signal. This will enable, having at disposal an even more complex system, to exploit all the heating control's functions.
- **Remote controls\*:** via appropriate software, this function enables the reduction of system management, remote indication of boiler run, thereby avoiding unnecessary inspection visits.

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