

MASTER 300 ver.3

Boiler temperature controller with a feeder



DESCRIPTION OF A CONTROLLER

MASTER 300 controller is designed for boiler operation control with automatic fuel feeding system, central heating pump and domestic hot water pump in central heating installations. The controller is located in a metal housing fixed on the boiler.

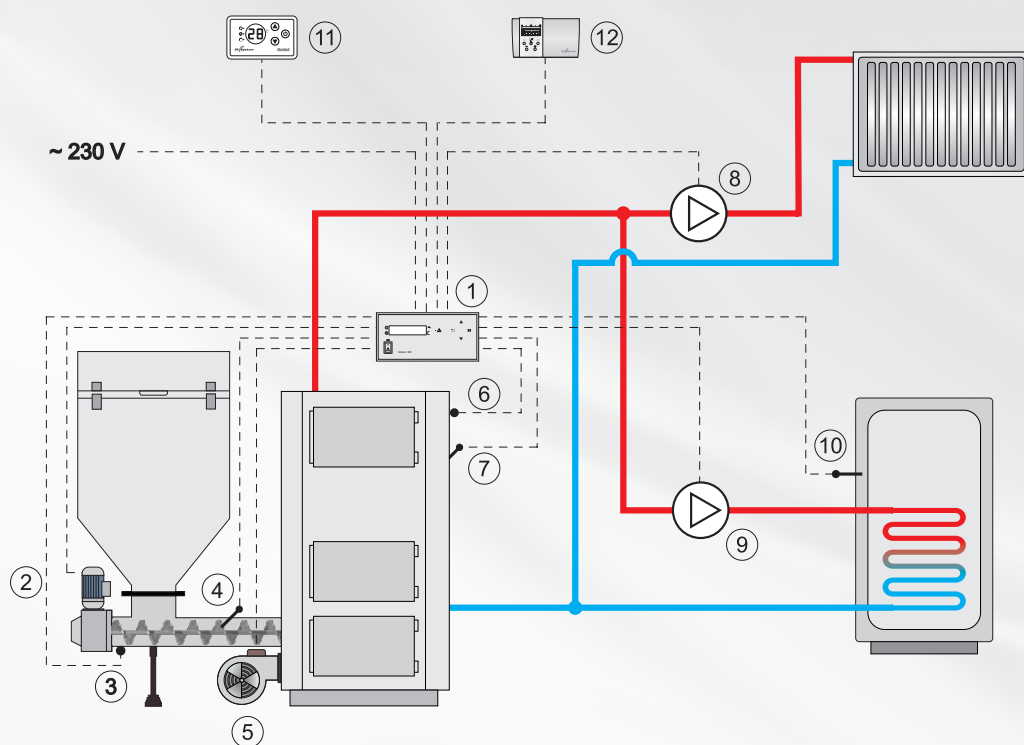
THE CONTROLLER HAS THE FOLLOWING FEATURES:

- maintaining the preset temperature of a boiler by controlling the air blow-in and the feeder operation
- possibility of operating the boiler with an emergency grate
- modulated and adjustable power of the fan
- function of supporting the combustion process by the so-called blow-bys
- adjustable damping time and automatic control turn off after extinguishing of the boiler
- control of the central heating circulation pump
- option of enabling or disabling the DHW priority
- control of the domestic hot water heater charging pump depending on the required temperature
- control of the circulation pump operation or a floor heating pump
- protection system - a TERMIK thermal fuse as an additional, mechanical protection of the boiler against uncontrolled temperature increase
- option to work in the SUMMER mode
- control of the boiler operation and domestic hot water pump acc. to one of several weekly programs
- COMFORT SYSTEM function, which protects the pump against scaling
- function of protecting the system against freezing and overheating of the boiler
- damage indication of the temperature sensor
- adjustable display brightness - increased during settings modification
- ability to connect the remote control panel CONTROL with audible alarm function
- possibility of connecting a room thermostat
- large, readable, alphanumeric LCD display with 2x16 characters



TECHNICAL DATA	MASTER 300
Range of measured temperature	from - 9 °C to + 120 °C
Range of temperature settings for a boiler	from + 40 °C to + 85 °C
Range of temperature settings for a DHW heater	from + 40 °C to + 70 °C
Range of temperature settings for central heating pump	from + 30 °C to + 70 °C
Smooth fan start-up	yes
Adjustable max. fan	40% - 100 %
Hysteresis of a fan (on/off difference)	from 1 °C to 9 °C
Hysteresis of a DHW pump (on/off difference)	from 2 °C to 9 °C
Adjustable blow-by (possibility to turn off the blow-by completely)	operation: 0 - 90 sec break: 1 - 60 min
Adjustable boiler damping time	0 - 45 min
Allowable outputs load	fan: 100 W / 230 V feeder: 200 W / 230 V central heating pump: 100 W / 230 V DHW pump: 100 W / 230 V
Rated voltage	~ 230 V, 50 Hz
Electric protection	2 x 5 A
Relative air humidity	< 95 %
Housing protection class	IP 20
Ambient temperature from	from 0 °C to + 40 °C

CONNECTION DIAGRAM OF THE CONTROLLER TO HEATING INSTALLATION



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|------------------------------|--|
| 1. MASTER 300 controller | 7. Central heating boiler temperature sensor |
| 2. Feeder motor | 8. Central heating pump |
| 3. Reed relay | 9. DHW pump |
| 4. Feeder temperature sensor | 10. DHW heater sensor |
| 5. Fan | 11. CONTROL panel |
| 6. THERMIK thermal fuse | 12. Room thermostat |

Example of the heating installation diagram with a MASTER 300 controller without the cutting off and protecting devices. It does not replace a professional project at the assembly spot.