

The controller for central heating system  
boilers with piston feeder and fan  
rotation control

## G-406-P07



### APPLICATION

The G-406-P07 is the controller designed for central heating coal boilers with piston or drawer feeder. It stabilizes the temperature of water and controls process of combustion in the boiler preventing a fire from burning out.

The G-406-P07 is adapted for TS-35 rail assembly, it has specially designed casing making it possible to install the controller in many different positions on the boiler.

The G-406-P07 makes possible connection of the additional pump that controls heating in the hot water tank.

### PROPERTIES

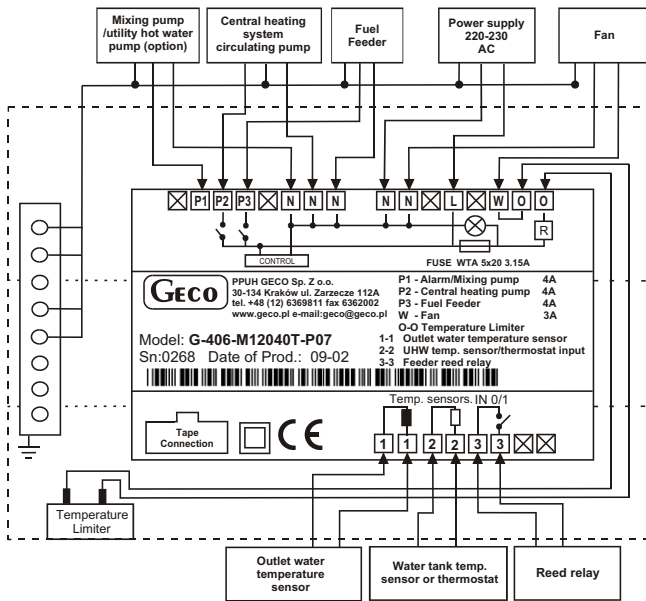
- Modern visualization of casing.
- Simple and user-friendly method of programming and service..
- Two-piece construction (executive module + keyboard)
- Possibility for direct connection of the equipment working under 230V voltage.
- Control over the hot water preparation system
- The fan rotation smooth adjustment
- Clutch cotter pin break sensor on the motoreducer (reed relay)
- Sound signal for the alarm.
- Provides storage of all controller settings while loss of network power.
- This controller is able to cooperate with any other room thermostat.

### TECHNICAL DATA

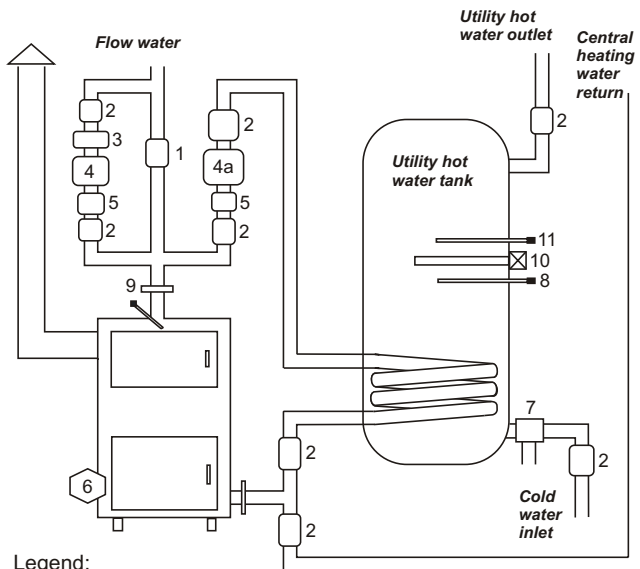
OUTPUT	TRIAC/RELAY	RECOMMENDED CONSTANT CARRYING COPACITY		
		4A	1HP	750W
P1 - Utility Hot Water Pump	16A	4A	1HP	750W
P2 - Central Heating Pump	16A	4A	1HP	750W
P3 - Fuel Feeder	16A	4A	1HP	750W
W - Fan	16A	3A	-	600W

Operating voltage	230V
Environment temperature	From +5°C to + 40°C
Relative humidity	20% ÷ 80% RH
Protection degree	IP65 from the front side of the control panel
Sensors type	NTC - range: from -40°C to +100°C

## Diagram of connections



## Hot Water Installation System



Legend:

1. Residual valve
2. Ball Cut-off valve
3. Check valve
4. Circulating pump
- 4a. Utility hot water tank supplying pump
5. Reticular filter
6. Boiler fan
7. Tank safety valve
8. Utility hot water temperature sensor of the G-406-P07 controller
9. Boiler hot water temperature sensor of the G-406-P07 controller
10. Tank electric heater
11. Temperature sensor of the tank electric heater

## Set includes

### I. General equipment:

1. Executive module G-406-M12340T-P07
2. Control panel G-406-P07
3. Tape connecting the control panel with the executive module
4. Outlet water temperature sensor CZT-CZ-OD-xxx
5. Cotter pin break sensor /reed relay/ CTC-100
6. Measuring drain

### II. Additional equipment:

1. Metal case
2. Hot water tank temperature sensor CZT-CZ-OD-xxx
3. Temperature limiter
4. Measuring drain
5. Supplying wire

## Controller description

The G-406-P07 controller was designed for central heating coal-dust boilers with piston or drawer feeder.

Due to guarantee optimal controller and boiler operation, the G-406-P07 is equipped with two kinds of parameters, first one configured by user and the second one by the boiler producer.

I User parameters available for users

Parameter	Description	Range	Producer Settings
U0	Temperature set on the boiler	Producer	45°C
U1	Time between fuel feeder turning on by the controller	5+250 s	10 s
U2	Fan efficiency	1+10	5

II Service parameters accessible for the boiler manufacturer

Parameter	Description	Range	Producer Settings
C0	Time after which the controller turns from standstill mode into automatic work, due to prevent furnace from burning out	10+250 min	10 min
C1	Time of switching on the feeder during an automatic work.	1+50	50 (=5s)
C2	Time after which the pump switches on for 30 s when block by the room thermostat is on. If 'c2=0' the pump will not be turned on.	0+60 min	0 min
C3	Time on which the controller turns into automatic operation, after suspended time in the backup state is finished	5+240 s	5 s
C4	Waiting time for water temperature increase, when the controller checks if the boiler furnace has gone out.	0+250 min	5 min
C5	Half of the rotation time of the fuel feeder driving wheel.	1+100	10 (=1s)
C6	Mixing pump control: 0-no pump-relay to the alarm 1-boiler pump-mixing pump 2-UHW pump-Ut. Water heating	0+2	0
D0	Min. temperature on the boiler	30+50°C	40°C
D1	Max. temperature on the boiler	55+90°C	80°C
D2	Central heating pump start temperature	25+80°C	40°C
D3	Hysteresis of the temperature	1+10°C	1°C
D4	The start temperature of the mixing pump or the UHW temp.	35+60°C	40°C
D5	Min. fan rotation	30+99	80
D6	Max. fan rotation	100+220	150
D7	The multiplier of the step of the feeder time of operation. 0 -> 0,1 sec step; 1 -> 1 sec step.	0+1	0

## Dealer

