

# DIGITAL CONTROLLERS DESIGN & PRODUCTION



# The controller for central heating blow boilers

G-406-P03





#### **APPLICATION**

The G-406-P03 is the controller designed for central heating blow boilers with the solid fuel feeding. It stabilizes the temperature of water and controls process of combustion in the boiler preventing a fire from burning out.

The G-406-P03 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-P03 makes possible connection of the additional pump that controls heating in the hot water tank.

#### **PROPERTIES**

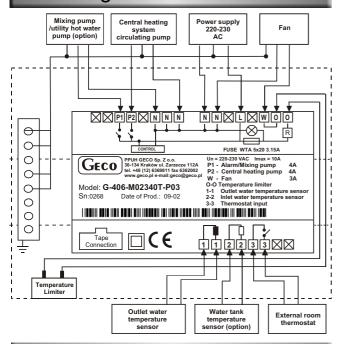
- Modern visualization of casing.
- Simple and user-friendly method of programming and service.
- Two-piece construction (executive module + keyboard)
- Possibility for direct connection of the equipment working under 230V voltage.
- Control over the hot water preparation system (it is possible to connect additional hot water pump or mixing pump)
- Smooth control over the fan rotations.
- The temperature sensor of the outlet water from the boiler
- 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**

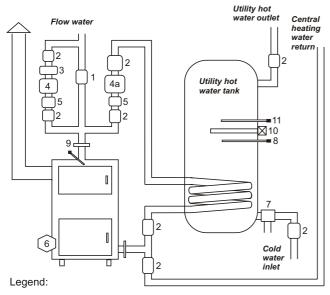
OUTPUT	TRIAC/RELAY	RECOMMENDED CONSTANT CARRYING COPACITY		
P1 - Hot Water Pump	16A	4A	1HP	750W
P2 - Central Heating Pump	16A	4A	1HP	750W
W - Fan	16A	3A	-	600W

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



- 1. Residuall valve
- Ball Cut-off valve
- Check valve 3.
- 4. Circulating pump
- 4a. Utility hot water tank supplying pump
- 5. Reticular filter
- 6. Boiler fan
- Tank safety valve
- Utility hot water temperature sensor of the G-406-P03 controller
- Boiler hot water temperature sensor of the G-406-P03 controller
- 10. Tank electric heater
- 11. The temperature sensor of the tank electric heater

## Controller description

The G-406-P03 controller was designed for central heating blow boilers. It controls combustion process inside the boiler no matter which type of fuel is used.

Due to guarantee optimal controller and boiler operation, the G-406-P03 is equipped with two kinds of parameters, first one configured by the user and the second one by the boiler producer.

I User parameters available for users

Para- meter	Description	Range	Producer Settings
U0	Temperature set on the boiler	Producer	45°C
U1	Work run of the fan	1÷10	5

Para- meter	Description	Range	Producer Settings
C0	Time of the fan stop, between blow through in the standstill mode.	1÷30 min	5 min
C1	Blow through time	1÷120 s	5 s
C2	Time after which the pump turns into operation for 30 seconds when interlock by the room thermostat is on. If 'c2' = 0 the pump will not start.	0÷60 min	0 (inact.
C3	Time after which the controller increases for 1 its run during software start	1÷20 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	Time after which the alarm will be turned off for good. If 'c5'=0 the alarm will not be turned off for good.	0÷99 min	0 (inact)
C6	Additional pump control: 0 no pump 1 mixing pump 2 utility hot water pump	0÷2	0
D0	Min. temperature on the boiler	15÷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	Low hysteresis of temperature	1÷10°C	1°C
D4	Fan minimum rotation	50÷99	50
D5	Fan maximum rotation	100÷255	180
D6	Start temperature of the mixing pump or the utility hot water pump.	35÷55°C	40°C

## Set includes

- I. General equipment:
- 1.Executive module G-406-M02340T-P03
- 2.Control panel G-406-P03
- 3. Tape connecting the panel with the module
- 4. Outlet water temperature sensor CZT-CZ-OD-xxx
- 5.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

### Dealer

