The controller for central heating boilers with pellets burners

G-406-P11

APPLICATION

The G-406-P11 is a controller for central heating boilers with burners prepared to burn wooden pellets. It feeds fuel precisely and controls air flow into the process of burning. With the inclusion of the heater device and flame senor the controller allows automatic flame ignition in case of a fuel burnout.

The G-406-P11 provides long and automatic boiler operation by maintaining a constant level of the fuel in the additional container.*

The G-406-P11 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.

*possibility for burners with additional tank.

PROPERTIES

- Modern visualization of casing.
- Simple and user-friendly method of programming and service.
- Two-piece construction (executive module + keyboard)
- Control over two screw feeders: the burner and the container
- Prepared to operate with IWABO and ECOTEC burners.
- Flame Ignition+electric heater control.
- Smooth and simple control for fan rotations.
- Feeder temperature sensor (flame-back protection for the feeder).
- Flame sensor.
- Sound signal for the alarm.
- Provides storage of all controller settings while loss of network power.

TECHNICAL DATA

OUTPUT	TRIAC/RELAY	RECOMMENDED CONSTANT CARRYING COPACITY		
P1 - Fuel feeder	16A	4A	1HP	750W
P2 - Electric heater	16A	4A	1HP	750W
P3 - C.H. Pump	16A	4A	1HP	750W
O - Container 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

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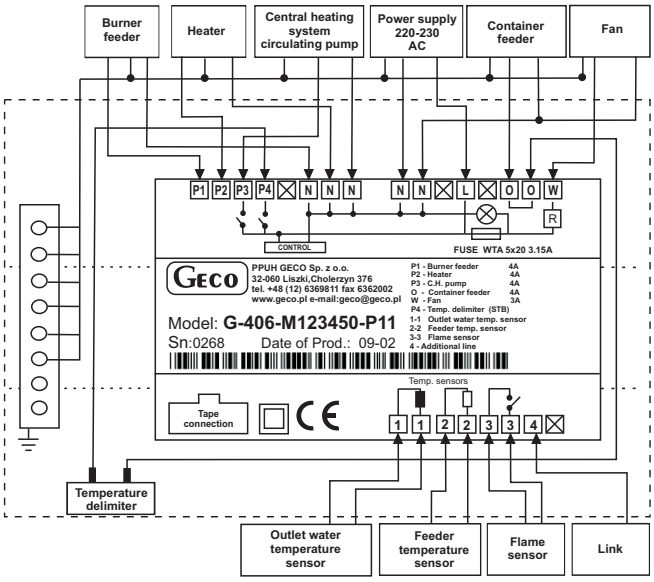
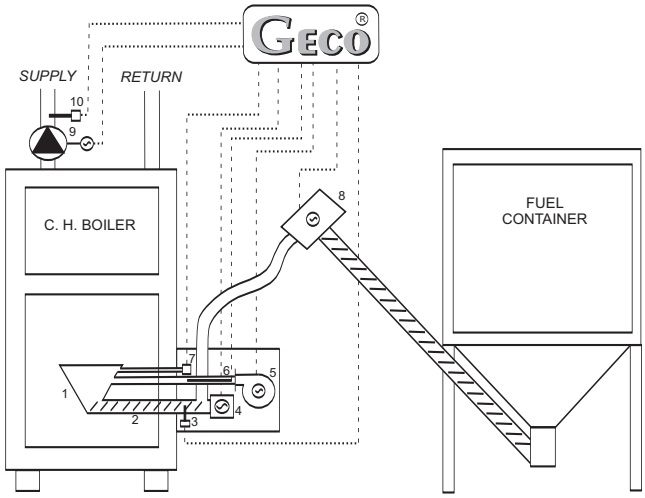
Diagram of connections



The control and heating system



1. Burner retort
2. Burner feeder
3. Feeder temp. sensor
4. Feeder engine
5. Fan (rotation control)
6. Heater (flame ignition)
7. Flame sensor
8. Feeder engine of the fuel container
9. Central heating pump
10. Outlet water temp. sensor

Controller description

The G-406-P11 controller is designed for pellets burners with application in the central heating boilers.

Due to guarantee optimal controller and burner operation, the G-406-P11 is equipped with two kinds of parameters, first one configured by the user and the second one by the burner producer.

I User parameters available for users

Parameter	Description	Range	Producer Settings
U0	Temperature set on the boiler	Producer	45°C
U1	Time of operation of the fuel feeder	2÷250 s	5 s
U2	Stop time of the fuel feeder	2÷250 s	5 s
U3	Time of the standstill.	5÷250min	10 min
U4	Delay in turning off the fan during a stage of standstill.	5÷250s	5
U5	Fan efficiency	1÷10	5

II Service parameters accessible for boiler manufacturer

Parameter	Description	Range	Producer Settings
C0	Time of the heater turning on during single ignition cycle.	1÷25 min	2 min
C1	Time of the feeder operation during one ignition cycle.	1÷10 min	3 min
C2	Time for which the controller turns on the feeder and the fan when the user set time of stop in a standstill mode finishes.	5÷240 s	30 s
C3	Brake time between ignitions.	1÷15 min	1 min
C4	Coefficient of which time of the fan operation is multiplied after the controller turns into a standstill mode. (to fire up a fuel)	1÷5	1
C5	Parameter responsible for turning on/off the control over the fuel ignition sensor in the feeder.	0÷1	1
C6	Sensitivity of the flame sensor for the end of the ignition.	5÷250	80
C7	Sensitivity of the flame sensor of the again(next) ignition.	5÷250	200
D0	Min temperature	30÷50°C	45°C
D1	Max temperature	55÷90°C	80°C
D2	The pump turning on temperature	25÷80°C	40°C
D3	Low hysteresis of the temperature	1÷10°C	1°C
D4	The fan efficiency during flame ignition	1÷8	5
D5	The fan minimum rotation	50÷90	80
D6	The fan maximum rotation	100÷220	180

Set includes

I. General equipment:
1.Executive module G-406-M123450-P11
2.Control panel G-406-P11
3.Tape connecting the control panel with the executive module
4.Outlet water temperature sensor CZT-CZ-OD-xxx
5.Flame sensor
6.Fuel level sensor
7.Measuring drain

II. Additional equipment:
1.Metal case
2.Temperature limiter
3.Measuring drain
4.Supplying wire

Dealer