

GH10PF

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The controller for high-temperature central heating boilers with pellets burners

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APPLICATION

The GH10PF is a controller for high temperature central heating boilers with burners prepared to burn wooden pellets.

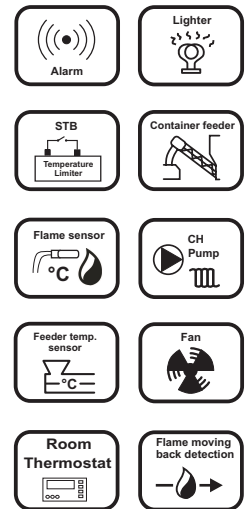
It feeds fuel precisely and controls air flow into the process of burning, using PT1000 sensor to detect boiler temperature. With the inclusion of the heater device and flame sensor the controller allows automatic flame ignition in case of a fuel burnout.

The GH10PF 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 GH10PF is equipped with automatic firing mode. It can manage work of two separate feeders for burners with additional storage. It can cooperate with boilers adjust in motion grate to remove the ash.

PROPERTIES

- modern and functional visualisation of casing
- four-segment LED display
- two-module construction (executive module + control panel)
- possible detection of boiler temperature by PT1000 sensor
- control over two screw feeders: the burner feeder and the container feeder
- smooth control over fan rotation
- automatic ignition mode in case of fuel burnout
- possible to use temperature limiter STB for safety reason
- possible to manage of motion grate which is use to clean burner from ashes
- sound signal for the alarms
- detection of maximum temperature in the burner feeder (flame moving back protection)
- provides storage of all controller settings in case of power failure
- smooth fan start (SOFTSTART)
- the controller can use flame sensor to manage automatic work



INSTALLATION ON THE BOILER

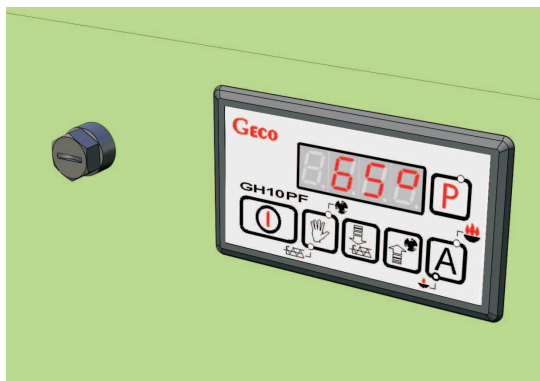


DIAGRAM OF CONNECTIONS

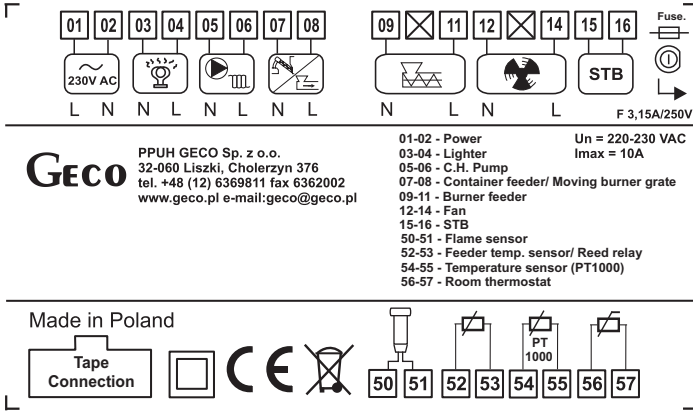
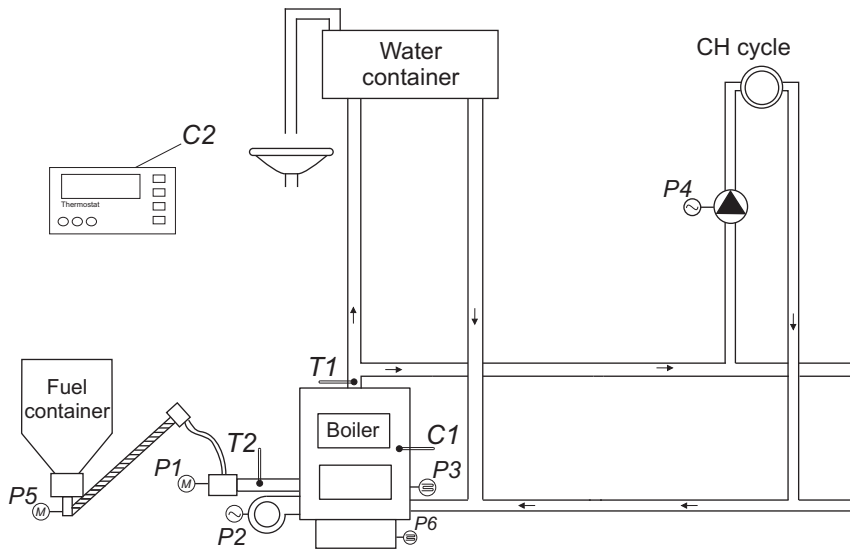


Diagram of electric connections			
Outputs		Inputs	
01 L	Power 230V	50 - 51	Flame sensor
02 N	Power 230V	52 - 53	Feeder temperature /Reed relay
03 L	Lighter	54 - 55	Boiler sensor (PT1000)
04 N	Lighter		Room thermostat
05 N	C.H. pump		
06 L	C.H. pump		
07 N	Container feeder/ Motion grate		
08 L	Container feeder/ Motion grate		
09 N	Burner feeder		
11 L	Burner feeder		
12 N	Fan	15 N	Temperature limiter - STB
14 L	Fan	16 L	Temperature limiter - STB

THE CONTROL AND HEATING SYSTEM



Controls		Sensors	
P1	Burner feeder	T1	Boiler temp. PT1000
P2	Fan	T2	Feeder temperature
P3	Lighter	C1	Flame detector
P4	C.H. pump	C2	Room thermostat
P6	Motion grate		

Controls		Sensors	
P1	Burner feeder	T1	Boiler temp. PT1000
P2	Fan	T2	Feeder temperature
P3	Lighter	C1	Flame detector
P4	C.H. pump	C2	Room thermostat
P5	Container feeder		

TECHNICAL DATA

Power supply voltage	230V AC +10%/ -15%
Fan and feeder protec.	3,15 A
Working temperature	from +5°C to +40°C
Relative humidity	20% ÷ 80% RH
Sensors type	NTC - range: from 0°C to +100°C PT 1000 - from 0°C to +400°C

Temp. sensors (NTC) 2,2 kΩ	
°C	Ω
0	7174,89
10	4374,83
20	2747,10
30	1774,91
40	1172,09
50	795,08
60	547,95
70	384,62
80	275,86
90	202,37
100	149,16

Temp. sensor (PT1000)	
°C	Ω
0	1000,00
50	1194,00
100	1385,10
150	1573,30
200	1758,60
250	1941,00
300	2120,50
350	2297,20
400	2470,90

Output	Constant load	
Fan	1A	200W
C.H. pump	1A	200W
Lighter	3A	600W
Burner feeder	2A	400W
Container feeder	2A	400W

GH10PF equipment	
Standard equipment:	
1) boiler temperature sensor - PT1000	
Optional equipment:	
1) burner feeder temperature sensor	
2) room thermostat	
3) flame detector	
Controls:	
1) fan	
2) C.H. pump	
3) lighter	
4) burner feeder	
5) container feeder/ motion grate	

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