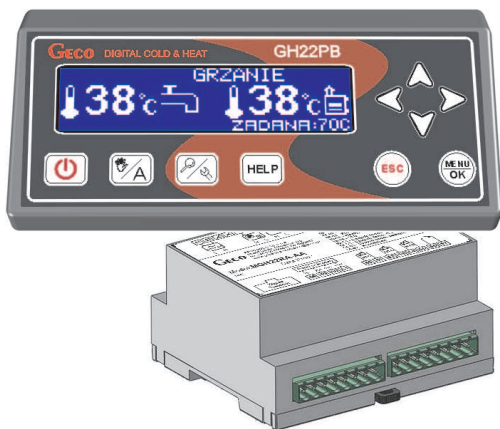


The controller for central heating boilers with pellets burners

GH22PB



APPLICATION

The GH22PB 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.

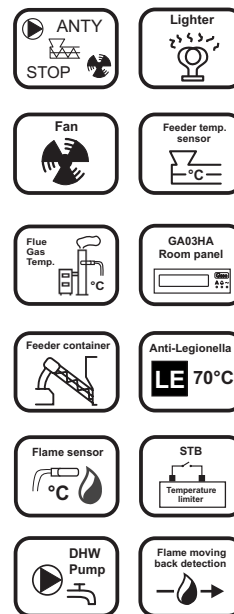
With the inclusion of the heater device and flue gas sensor (flame sensor) the controller allows automatic flame ignition in case of a fuel burnout.

The GH22PB supervises the process of preparing domestic hot water (DHW) and allows to operate main heating circuit (central heating cycle).

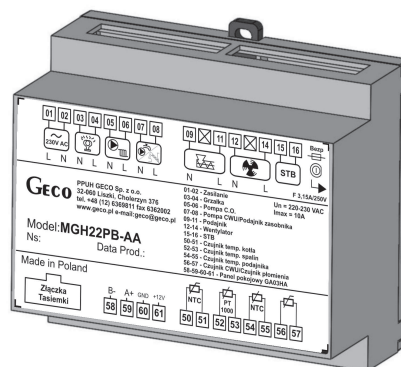
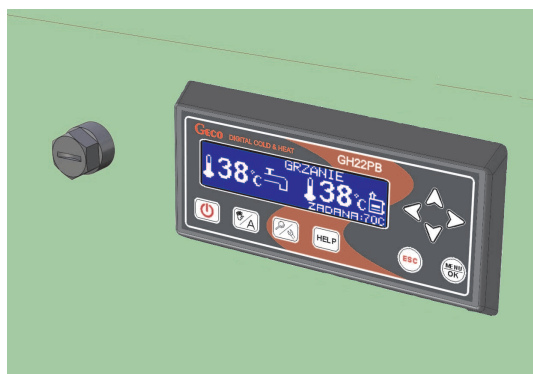
The GH22PB controller has been fitted for full communication with the GA03HA room panel (manufactured by GECO).

PROPERTIES

- Functional visualisation of casing and large readable graphic LCD display.
- Two module construction (module + panel) enable assembly inside boiler construction.
- Possible to measure flue gas temperature (PT 1000)
- Possible of control over two screw feeders: the burner feeder and the container feeder
- Anit-stagnation protection for the executive devices - ANTI STOP function
- Desinfection of the DHW cycle (Anti Legionella), DHW priority, Summer mode function.
- Co-operation with room panel GA03HA (full control of boiler operation from apartment).
- Automatic mode regulation which adjust fan rotation to individual boiler dynamics.
- Control temperature in the burner feeder and flame sensor to ignition mode (option).
- Sound and text alarm signals.
- Possible to use temperature limiter STB for safety reason.
- Many language versions.
- Boiler operational parameters archiving function, among others alarm controller record.
- Soft start of the fan.
- Possibility of selecting type of controller regulation: ONLY PUMP MODE, GRATE MODE.



INSTALATION ON THE BOILER

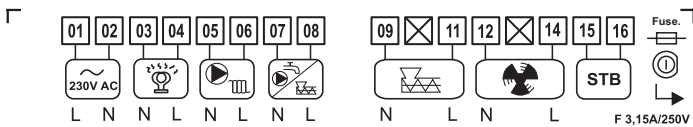


GH22PB

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DIAGRAM OF CONNECTIONS



GECO

PPUH GECO Sp. z o.o.
32-060 Liszki, Cholerzyn 376
tel. +48 (12) 6369811 fax 6362002
www.geco.pl e-mail:geco@geco.pl

01-02 - Power Un = 220-230 VAC
03-04 - Lighter Imax = 10A
05-06 - C.H. Pump
07-08 - D.H.W. Pump/Mix pump/Burner Feeder
09-11 - Burner Feeder/ Container Feeder
12-14 - Fan
15-16 - STB
50-51 - Boiler temp. outlet sensor
52-53 - Feeder temp. sensor/Room thermostat
54-55 - Flue gas temp. sensor
56-57 - D.H.W. temp/Return temp/Flame/Reed relay
58-59-60-61 - Room panel GA03HA

Tape Connection

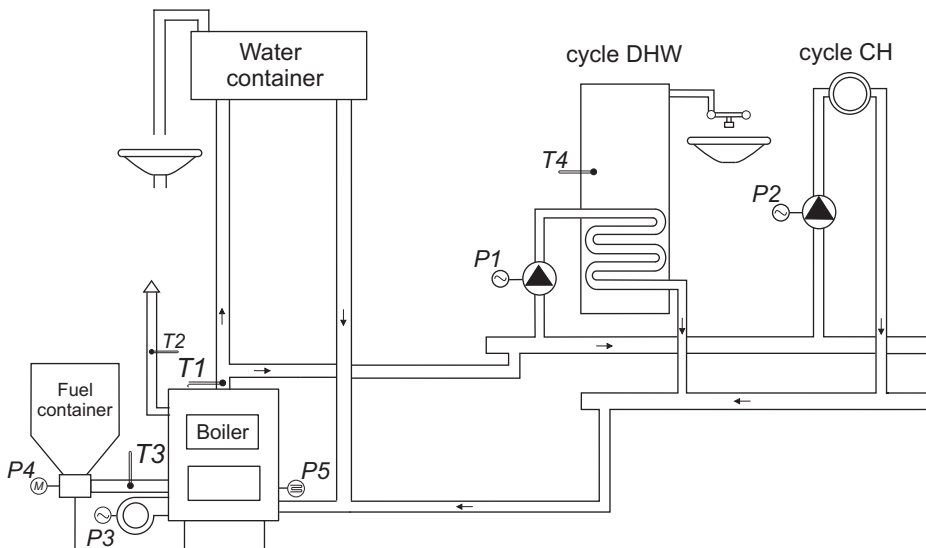
B- A+ GND +12V
58 59 60 61

NTC
PT 1000
50 51 52 53 54 55 56 57

Diagram of electric connections

Outputs			Inputs		
03	N	Lighter	50,51	—	Boiler temperature sensor
04	L	Lighter	52,53	—	Feeder sensor/Thermostat
05	N	CH pump	54,55	—	Flue gas temp. sensor
06	L	CH pump	56,57	—	DHW temp./Return temp./Flame sensor/Reed relay
07	N	DHW Pump/Mix Pump	58	—	B-
			59	—	A+
08	L	DHW Pump/Mix Pump	60	—	GND ⊥
			61	—	+12 V DC
09	N	Feeder	01	L	Power supply 230V
11	L	Feeder	02	N	Power supply 230V
12	N	Fan	15		Temp. limiter (STB)
14	L	Fan	16		Temp. limiter (STB)

THE CONTROL AND HEATING SYSTEM



Controls	Sensors
P1 CH Pump	T1 Boiler temperature
P2 DHW Pump	T2 Flue gas temperature
P3 Fan	T3 Feeder temperature
P4 Container feeder	T4 DHW temp./Flame
P5 Lighter	

TECHNICAL DATA

Power supply voltage	230V AC +10%/ -15%
Fan and feeder protection	3,15A
Working temperature	od +5°C do +40°C
Relative humidity	20% + 80% RH
Sensor type	NTC - range: od 0°C do +100°C PT1000 - ran.: od 0°C do +750°C

Temp. sensor (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
450	2641,80
500	2809,80
550	2974,90
600	3137,10
650	3296,40
700	3452,80
750	3606,40

Output	Constatnt load	
CH pump	1A	250W
DHW pump/Mix/Feeder	1A	250W
Fan	1A	250W
Burner feeder	1A	250W
Lighter	3A	750W

GH21PB equipment

Standard equipment:

- 1) boiler temperature sensor
- 2) flue gas temperature

Optional equipment:

- 1) DHW temperature sensor/ Flame sensor
- 2) GA03HA Room panel
- 3) supplying wire
- 4) burner feeder temperature sensor
- 5) temperature limiter STB

Controls:

- 1) CH pump
- 2) DHW pump/ Container feeder
- 3) fan
- 4) lighter
- 5) burner feeder

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