

Controller for central heating boilers with piston feeder

GH21TA



APPLICATION

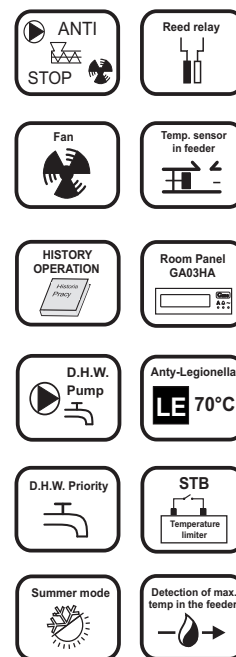
The GH21TA is a controller for central heating boilers with burners with piston feeder.

GH21TA allows the main heating circuit (central heating-CH) to operate. The controller also operates work of an additional pump. The function of this additional pump depends of which heating configuration is selected. The pump supervises the process of preparing hot utility water (DHW) or executing mixing pump work.

The GH21TA controller has been fitted for full communication with the GA03HA room panel (manufactured by GECO) which allows boiler operation to be controlled comfortably from user's apartment.

PROPERTIES

- Functional visualisation of casing and large readable graphic LCD display.
- Single-module construction enables comfortable installation on the boiler .
- Disinfection of the DHW circulation (Anti-Legionella function)
- DHW priority function and SUMMER mode.
- Anit-stagnation protection for the executive devices - ANTI STOP function
- Possibility of adjusting individual hysteresis value (CH and DHW).
- Co-operation with room panel GA03HA (full control of boiler operation from apartament).
- Smooth control over fan rotations.
- Co-operation with reed relay (breaking cotter pin on the motor-reductor).
- Control temperature in the burner feeder.
- Built -in temperature limiter in standard (STB).
- Sound and text alarm signals.
- Many language versions. choose main screen function;
- Boiler operational parameters archiving function, among others alarm controller record.
- Additional relay, which protects fan and feeder output connectors when the triacs is closed, and allows for emergency work when this is happend.
- Possibility of selecting type of controller regulation among others FIRE GRATE MODE.



INSTALATION ON THE BOILER

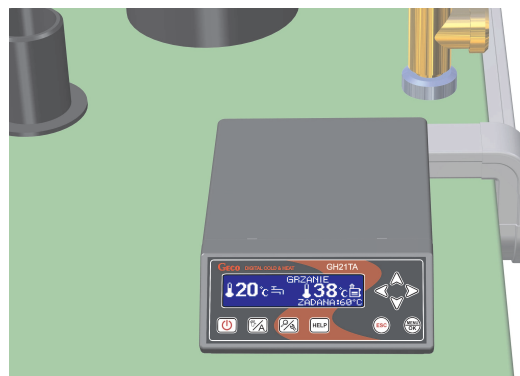


DIAGRAM OF CONNECTIONS

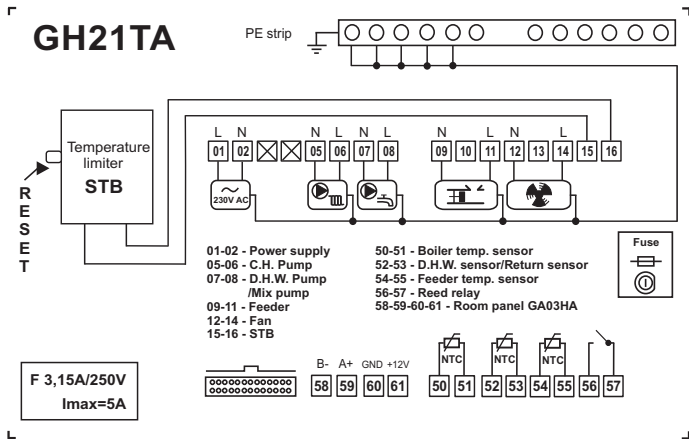
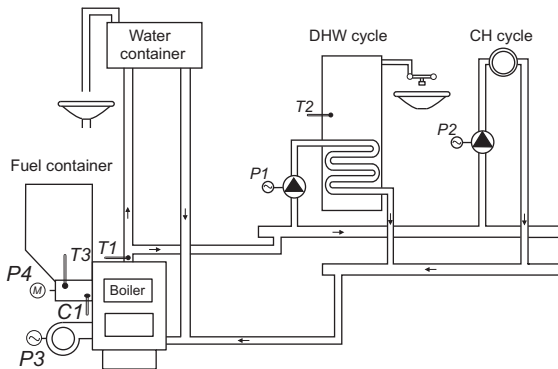
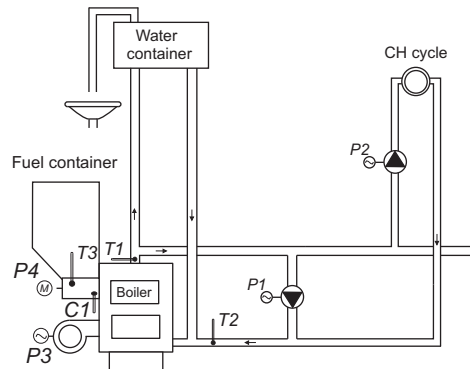


Diagram of electric connections					
Outputs			Inputs		
01	L	Power 230V	50,51	—	Boiler temp. sensor
02	N	Power 230V	52,53	—	DHW temp./Return temp.
05	N	CH pump	54,55	—	Fuel feeder temperature
06	L	CH pump	56,57	—	Reed relay
07	N	DHW/Mix - Pump	58	—	B-
08	L	DHW/Mix - Pump	59	—	A+
09	N	Fuel feeder	60	—	GND ⊥
11	L	Fuel feeder	61	—	+12 V DC
12	N	Fan			Room panel GA03HA
14	L	Fan			
15		Temp. limiter (STB)			
16		Temp. limiter (STB)			

THE CONTROL OF HEATING SYSTEM



Controls	Sensors
P1 DHW pump	T1 Boiler temperature
P2 CH pump	T2 DHW temperature
P3 Fan	T3 Feeder temperature
P4 Feeder	C1 Reed relay



Controls	Sensors
P1 Return pump	T1 Boiler temperature
P2 CH pump	T2 Return temperature
P3 Fan	T3 Feeder temperature
P4 Fuel Feeder	C1 Reed relay

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 - zakres: od 0°C do +100°C

Output	Constatnt load	
Fuel feeder	1A	250W
CH pump	1A	250W
HUW pump	1A	250W
Fan	1A	250W

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

GH21TA equipment	
Standard equipment:	
1) boiler temperature sensor	
2) reed relay	
3) temperature limiter - STB	
Optional equipment:	
1) DHW temperature sensor	
2) fuel feeder temperature sensorreed relay	
3) GA03AH room panel	
4) supply wire	
Controls:	
1) fuel feeder	
2) CH pump	
3) DHW pump	
4) fan	