

The controller for central heating boilers with feeding screw

GH10RA



(G-403-P02, G-406-P09 SUCESOR)



APPLICATION

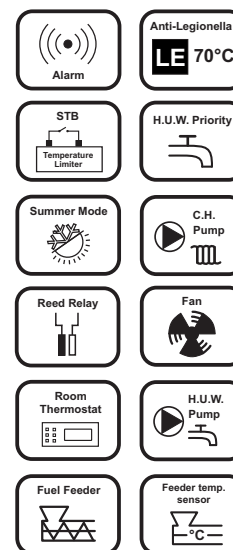
The GH10RA is a controller for central heating boilers with burners with feeding screw.

The GH10RA supervises the process of preparing hot utility water (HUW cycle), and allows to operate main heating circuit (central heating - CH cycle).

The GH10RA 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.

PROPERTIES

- front panel covered with plexiglas, resistant to external factors and more durable
- modern and functional operation panel by touch sensors
- two-module construction (executive module + control panel)
- cooperation with the HUW pump (Hot Utility Water)
- disinfection of the HUW cycle (Anti-Legionella function)
- HUW priority and Summer mode functions
- cooperation with reed relay (breaking cotter pin the motoreductor)
- possible to cooperate with any room thermostat
- controls fan and fuel feeder work
- possible to use temperature limiter STB for safety reason
- additional protective relay on fan and fuel feeder outputs
- 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



INSTALLATION ON THE BOILER



DIAGRAM OF CONNECTIONS

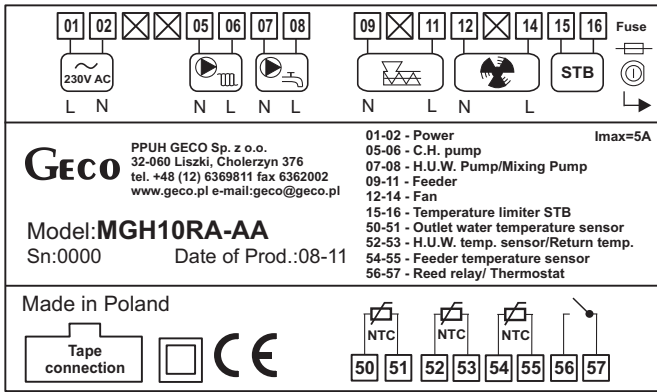
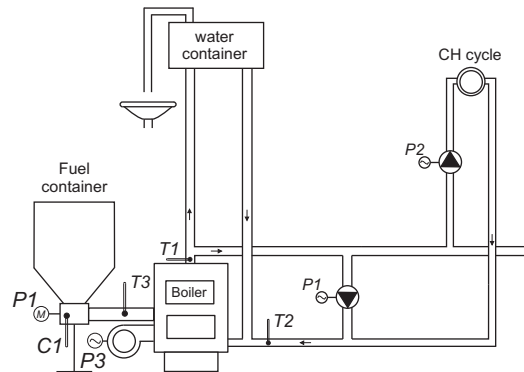
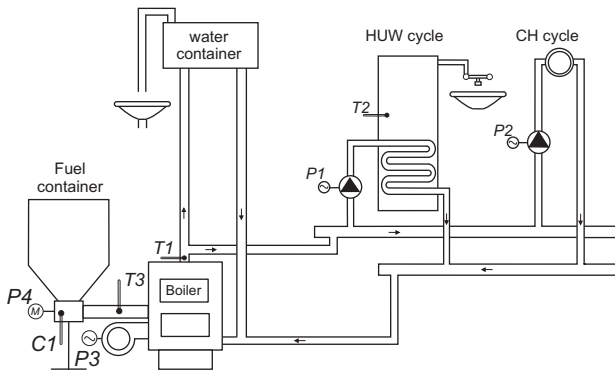


Diagram of electric connections			
Outputs		Inputs	
01 L	Power AC 230V	50 - 51	Boiler temperature
02 N	Power AC 230V	52 - 53	H.U.W. temperature/ Return temperature
05 N	C.H. pump	54 - 55	Feeder temperature
06 L	C.H. pump	56 - 57	Reed relay/ Thermostat
07 N	H.U.W. pump/Mix pump		
08 L	H.U.W. pump/Mix pump		
09 N	Feeder		
11 L	Feeder		
12 N	Fan		
14 L	Fan		

THE CONTROL AND HEATING SYSTEM



Controls		Sensors	
P1	H.U.W. pump	T1	Boiler temperature
P2	C.H. pump	T2	H.U.W. temperature
P3	Fan	T3	Feeder temperature
P4	Feeder	C1	Reed relay

Controls		Sensors	
P1	Return pump	T1	Boiler temperature
P2	C.H. pump	T2	Return temperature
P3	Fan	T3	Feeder temperature
P4	Feeder	C1	Reed relay

TECHNICAL DATA

Power supply voltage	230V AC +10%/-15%
Fan and feeder protect.	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

Output	Constant load	
Fan	1A	200W
C.H. pump	1A	200W
H.U.W. pump	1A	200W
Feeder	2A	400W

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

GH10RA equipment	
Necessary equipment:	
1) boiler temperature sensor 2) feeder temperature sensor	
Optional equipment:	
1) H.U.W. temperature sensor / return temperature sensor 2) reed relay / thermostat	
Controls:	
1) fan 2) C.H. pump 3) H.U.W. pump / mixing pump 4) feeder	