



Smart Boiler Controller

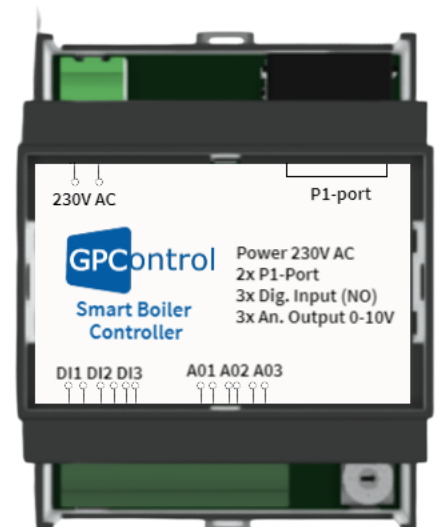
The GPCControl smart controller maximizes the own energy consumption of solar panels, and minimizes the feed-in of energy surpluses.

The GPCControl measures, via the P1 port on the digital meter, the energy injected into or taken from the grid.

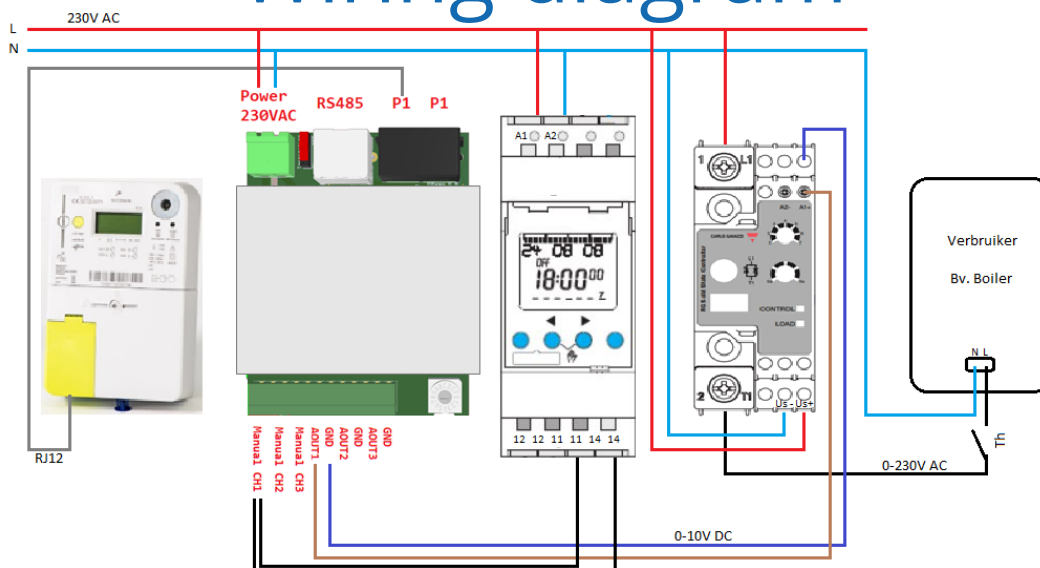
If there is a surplus of solar energy, an electric boiler is fed, controlled by the GPCControl.

The injection measured by the digital meter is read into the GPCControl Smart Boiler Controller via the P1 port and converted into a control signal on the Carlo Gavazzi Solid State Relay (Art. 81100). This translates the control signal into a percentage of energy that it passes on to the resistance of the boiler, in the exact amount that the injection is sent to 0.

With an optional TECO digital time switch (Art. 20170) in between, a dry contact can be closed on the control unit, whereby the stepless control unit is bridged and the Carlo Gavazzi Solid State Relay (Art. 81100) receives the command to start the boiler in full load.



Wiring diagram



The clock module is optional.

Safety instructions

All safety instructions, warnings and instructions for use should be read first. Operating instructions should be followed and kept for future reference.



The unit should never be used in the immediate proximity of water. Prevent water and moisture from entering the unit.

The Solid-State and water heater must always be connected behind a 30mA differential.



The unit should only be placed or mounted in the manner recommended by the manufacturer.



The unit should never be placed in the immediate vicinity of heat sources such as heating system parts, stoves, and other heat-producing equipment (including amplifiers).



Connect the appliance to the correct mains voltage only by means of the cables recommended by the manufacturer, as described in the operating instructions and/or indicated on the terminal side of the unit.



The device may only be connected to a legally approved (edge) grounded mains connection.



The power cable or power cord must be placed in such a way that it cannot reasonably be walked on or have objects placed on it that could damage the cable. Special attention should be paid to the point where the cable is attached to the unit and where the cable is connected to the mains connection (strain relief).



Prevent foreign objects and liquids from entering the device.



To connect power components to the offered control signals, follow the instructions of the manufacturer of the respective items. Pay particular attention to correct fusing, heat dissipation, limitation of maximum currents, type of loads, etc.

In all cases, when there is a danger of unsafe operation of the device after an event, such as:



- after the main voltage cable or the main voltage cord becomes damaged
- foreign bodies or liquids have entered the device (including water)
- after a fall of the device or damage of the housing

After noticing a change in the operation of the device, it must be checked by a qualified technician.



The user must not perform any work on the unit other than that described in the operating instructions.



GPCControl should only be installed by a qualified electrical installer.

The presence and proper operation of the thermal break must always be guaranteed.