









Guarantee Conditions

This device's warranty covers 3 years. This warranty is limited to replacement of the defective part, which will be delivered in the same material conditions as they were received. Ports not included.

We disclaim all responsibility for damaged devices as a result of improper handling, omission of warnings given in this manual, or lack of technical knowledge as to the needs of the installation. Out of warranty:

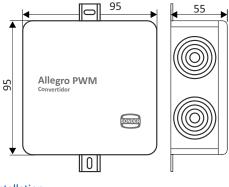
- Devices with serial number damaged, deleted or modified.
- Devices connected or used without complying with the instructions included in the device package.
- Devices modified without prior consent on the part of the manufacturer.
- Devices damaged either by impacts or liquid or gaseous spillage or emissions.
- Devices presenting natural wear-and-tear or because of improper use of the device.
- Those costs resulting from delivery or reception of material.
- Demands of compensation due to loss of profit, compensation for utilization as well as indirect damages, as long as these are not of obligatory liability in compliance with the law.

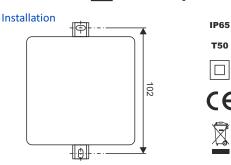
Sonder Regulación, S.A.



Avda. La Llana, 93 08191 RUBÍ (Barcelona) Spain www.sonder.es

Measures mm





Warnings

- Converter for installation in a surface with fixed pipe connection and separating the signal transmission wiring of the electrical wiring or power, as it interferes with the signal reception. Intended for use in environments of pollution degree 2, humidity, temperature or gases may affect proper operation. You should also stay away from sources of strong electromagnetic fields as they may affect its operation.
- Do not use the control to operate 0-10V signal pumps with line break detection, because they works in a minimum speed if the control signal is 0V.
- For any handling, installation or repair, discharge static electricity before and control must be disconnected from the power supply.
- Electrical connections may only be those indicated in this manual and on the label of the device connection.
 Assembly, electrical connection, set-up, and maintenance should be carried out by qualified technicians.
- This regulator is not a safety device, neither can be used as such; it is the responsibility of the person in charge to include adequate protection for each type of installation (complying with the standards).
- Sonder Regulación S.A. reserves the right to make any changes to the product, the technical data, or the assemblying instructions, without prior notice.

Description

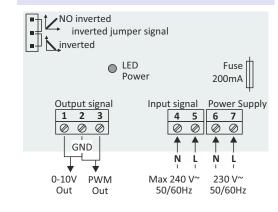
It is a signal converter for passing signals of relay or triac to PWM or 0-10V. It also allows reversing the output signal (PWM inverted / 0-10V inverted).

You can connect high-efficiency pumps without having to change the regulator, or connect a normal thermostat to a modulating boiler.

It incorporates an internal LED that indicates that the control is connected to the electric current.

NOTE: the device has a delay time (10/20 seconds) between the actuation of the relay and the PWM signal that activates the electronic pump.

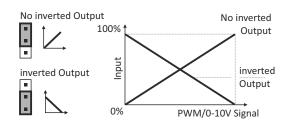
Electrical Connections



- 1 Output signal of 0-10V control
- 2 Common for the output signals
- 3 Output signal of PWM control
- 4 Input signal: Neuter of the control to convert
- 5 Input signal: Line of the control to convert
- **6** Neuter of power supply
- 7 Line of power supply

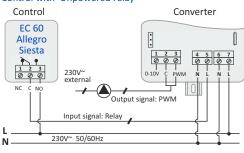
Output Signal inverted

By means of the three-pole jumper on the left-hand side above the output terminals the output signal (PWM/0-10V) can be issued inverted or not inverted, according our installation requirements.

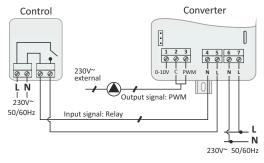


Application Examples

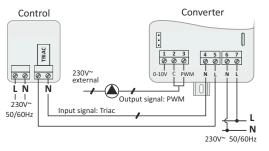
Control with Unpowered relay



Control with powered relay



Control with TRIAC



Technical data

Inputs:	230V~ +10% -15%, 50/60Hz Bursts (triac), Powered Relay PWM / 0-10V
	625 Hz ±15%
PWM Voltage:	11,0V
Fuse:	5x20mm, 200mA
Power consumption:	maximum 1,5VA
Rated impulse voltage:	2,5KV
Box:	ABS IP65 95x95x55 mm
	Wall mounting
Protection type:	IP65 / DIN EN 60529
Protection class:	II
Ambient Temperature:	050°C
Degree of pollution:	2