

**HIGH FLEXIBILITY FOR CONTROLLING AND MONITORING SOLAR ARRAYS IN SOLAR THERMAL PLANTS**

Local control unit designed to control high precision solar trackers for solar thermal plants.

**Able to control different types of actuators with any type of drive**

For controlling and monitoring parabolic collectors or heliostats. For controlling single phase and three phase motors, with or

without rotational control, etc. It also offers the possibility of controlling single axis and dual axis actuators.

**CE Marking Compliant**

RS-485, USB On-The-Go and Ethernet communications. Support for communication protocols such as Modbus RTU, Modbus TCP, SNMP, HTTP and proprietary protocols.

PROTECTIONS

- General input protection: Thermal magnetic circuit breaker.
- LOC voltage surge protection: varistor.
- Pump voltage surge protection: varistor.
- Over current protection: Fuse.

OPTIONAL ACCESSORIES

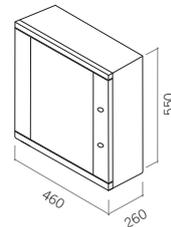
- Communication via Bluetooth, SPI, I2C and GPRS.
- Emergency button.

ADVANTAGES

- No external sensors: solar tracking algorithm with an accuracy of  $\pm 0.0003^\circ$ .
- Status, communication and general power supply LEDs.
- Isolation through optocouplers at the inputs, quadrature decoders and pump drive.
- Easy integration into the solar array control and monitoring system.
- Protection devices to guarantee the safety of the collector, actuator and equipment itself.



Size and weight (mm)



Electronic Card	
<b>Internal Power Supply</b>	
Input Voltage	230 Vac
<b>Microcontroller<sup>(1)</sup></b>	
Architecture	RISC
Program FLASH	512 Kbytes
Program SRAM	64 Kbytes
Data FLASH	512 bytes
<b>Real Time Clock (RTC) with Battery</b>	
Precision	+/-3.5 ppm
RAM	236 bytes
<b>Valves Drive</b>	
Number	8
Type	Mosfet
Voltage Vds	60 Vdc
Current Id	12 Amp
<b>Pump or Engine Drive<sup>(4)</sup></b>	
Number	6
Type	Triac
Voltage	800 Vac
Current	25 Amp
<b>Quadrature Decoders (QDEC)<sup>(3)(4)</sup></b>	
Number	2
Signals	A, /A, B, /B, R y /R
Absolute maximum voltage	30 Vdc
Protection	Diodes on reverse
<b>Digital Inputs<sup>(3)</sup></b>	
Number	4
Absolute maximum voltage	30 Vdc
Protection	Diodes on reverse
Filtering	Trigger Schmitt
<b>Digital Outputs</b>	
Number	4
Type	Trigger Schmitt
Nominal Switching	5A@125Vac, 2A@250Vac y 5A@30VDC
<b>Analog Inputs<sup>(2)</sup></b>	
Number	1
Range	0 – 2 mA
ADC Resolution	24 bits
Protection	Transil
<b>PT100 Inputs<sup>(2)</sup></b>	
Number	1
Type	3-wire
Isolation	Optocouplers 5V RMS
ADC Resolution	Transil
<b>Others</b>	
Ambient temperature	-10°C to +65°C
Protection class	IP66

**Notes:** <sup>(1)</sup> It stands the format IEEE double precision floating point Standard <sup>(2)</sup> Expandable <sup>(3)</sup> State indicating Led's <sup>(4)</sup> For parabolic collectors the number would be half of this.