

## Steca TR A501 T

### 5 inputs, 1 output

The Steca TR A501 T solar thermal controller has been developed to be especially efficient in the widest possible range of applications. It is an ideal solution for all single-circuit systems.

The compact designer casing can be superbly integrated into solar stations, but can of course also be installed on walls or top-hat rails.

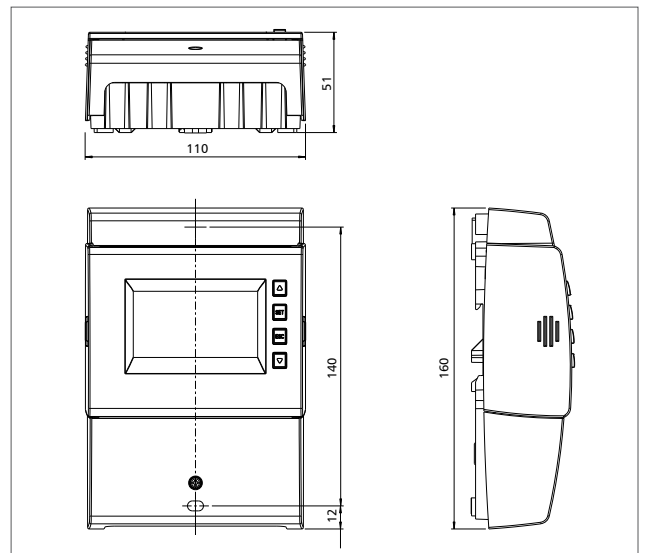
A special switched-mode power supply ensures maximum efficiency and economic operation: This reduces own consumption to a minimum and the variable input voltage allows universal use of the device anywhere in the world. The innovative electronic load control technology protects the controller against overloading and installation errors.

The Steca TR A501 T has a triac output for speed control that can also be used as a PWM output for controlling a high-efficiency pump. The equipment is rounded off by five inputs for recording temperature and pulses.

Together with an external pulse encoder, the integrated calorimetry system allows the acquisition of numerical information on the solar yields of the system. The clear, graphically animated display provides visualisation of the system and the current operating status. The consistent use of pictograms guarantees easy operation.

The Steca TR A501 T controller is especially suitable for monitoring and controlling solar thermal systems with a single collector array or simple solar-heated swimming pools. Alternatively, numerous pre-programmed configurations are provided for individual use in other applications, such as back-up heating, solid fuel boilers, thermostats, differential thermostats / storage tank reloading, return increases and circulation systems.

The Steca TR A501 T also provides important system monitoring and safety functions, such as special error displays for rapid correction of system malfunctions. This ensures long-term, safe and reliable operation of the entire solar system.



### Product features

- Compact, multipart designer casing
- Installation versions: Solar pump stations, wall installation, mounting rails
- Wave packet (Triac) and pulse width modulation (PWM) ensure electronic RPM control
- High level of operational safety through fault diagnosis
- Hours-of-operation logger
- Software update possible
- Daily pump start
- Screw terminals allow universal and rapid installation
- Low power consumption thanks to universal and wide-range switched-mode power supply
- Variable input voltage range for worldwide controller deployment
- Electronic overloading control and protection

### Displays

- Multifunction graphical LCD display with backlighting
- Animated representation of the systems and operating states

### Operation

- Non-verbal menu navigation
- Manual switch for manual, auto, off

### Functions

- Heat quantity (pulse generator, determination)
- Display showing CO<sub>2</sub> savings
- Reduction of stagnation phases
- Holiday (storage tank recooling)
- Storage tank quick charge
- Interval / tube collector
- Anti-freeze
- Display storage tank top

|                        | TR A501 T  |
|------------------------|--|
| System voltage         | 115 V AC ... 230 V AC, 50 Hz / 60 Hz   |
| Own consumption        | ≤ 0.8 W  |
| Inputs                 | 5<br>4 x temperature (Pt1000)<br>1 x temperature (Pt1000) or pulse   |
| Outputs                | 1<br>1 x Triac for speed control (R1),<br>max. 250 W (230 V) or<br>PWM control signal for pump speed<br>(PWM R1) |
| Hydraulic schemes      | 8  |
| Ambient temperature    | 0 °C ... +50 °C  |
| Degree of protection   | IP 22 / DIN 40050 [without front panel: IP 20]   |
| Dimensions (X x Y x Z) | 110 x 160 x 51 mm  |
| Weight                 | 300 g  |

Technical data at 25 °C / 77 °F

Areas of application: inputs/outputs:



System types

Solar thermal systems

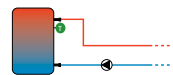


Internal heat exchanger, intelligent pump control



Direct flow-through, intelligent pump control

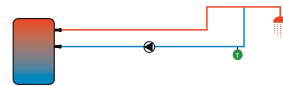
Further system types



Thermostat



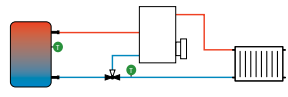
Back-up heating



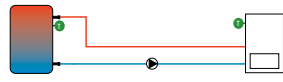
Circulation function (controlled by temperature / time)



Storage tank reloading



Heating return increase



Solid fuel boiler

