

SOLAR CONTROLLERS

These controllers are intended to control solar thermal systems with one or two solar collector arrays and up to 3 solar consumers. The solar consumers may be hot water storage tanks, pool heat exchangers, or thermal stores designed for heating.

They involve functions for efficient operation of solar thermal systems and permit solar pump speed control. They are user-friendly, featuring help function and menu in various languages. The graphic screen enables easy display and selection from typical solar thermal systems. They can be used as universal differential thermostats or as time and temperature-switched thermostats. SRS controllers are also equipped with CAN bus that permits to connect mutually 2 or more controllers or connect a controller with a datalogger to share data.

Main advantages:

- both graphics and texts on a backlit display
- simple viewing of the current measurement values
- analysis and monitoring of the system also by means of statistical graphics
- extensive setting menus with explanations
- menu lock can be activated to prevent unintentional setting changes
- usual preset parameters in factory setting

STDC E SOLAR CONTROLLER

STDC E controller is designed for use with single-array solar thermal systems with one heat collection circuit. Two Pt1000 temperature sensors are included.

SRS1T SOLAR CONTROLLER

SRS1T controller is designed for use with single-array solar thermal systems with one heat collection circuit. It also includes a potentialfree contact for switching a boiler/heating element of max. 3 kW power input, PWM/0-10V output, iPWM flow rate data and two Pt1000 temperature sensors.

SRS2 TE SOLAR CONTROLLER

SRS2 TE controller is designed for use with solar thermal systems with one solar array and one solar consumer, permitting to switch directly an auxiliary heat source of up to 3.5 kW power input (electric heating element, gas boiler, heat pump) and a circulation pump.

Three Pt1000 temperature sensors are included.

SRS3 E SOLAR CONTROLLER

SRS3 E controller is designed for use with solar thermal systems with 2 independent solar arrays and one solar consumer or one solar array and up to 2 solar consumers or for 2 independent solar thermal systems. When connected with one solar array and one solar consumer also other functions can be used – auxiliary source, heating circuit return preheating, solid-fuel boiler control, heat exchange, cooling....

Three Pt1000 temperature sensors are included.

SRS6 EP SOLAR CONTROLLER

SRS6 EP controller is designed for use with solar thermal systems with 2 independent solar arrays and one or two solar consumers or one solar array and up to 3 solar consumers or for 2 independent solar thermal systems.

In simple hydraulic variants where some outlets remain free, also other functions can be used – auxiliary source, heating circuit return preheating, solid-fuel boiler control, heat exchange, cooling...

The controller enables 2 flowmeters to be connected.

Five Pt1000 temperature sensors are included.

Solar thermal systems can be controlled also by IR weather compensated controllers that are designed to control heating systems as well.

SOLAR CONTROLLERS - PARAMETER OVERVIEW



| Name | SRS1T | STDC E | SRS2 TE | SRS3 E | SRS6 EP |
|---|---|--|---|---|---|
| Code | 17570 | 13164 | 14388 | 13166 | 13168 |
| Application | control of 2 outputs (1 mech. relay, 1 optional 0-10V or PWM), 3 inputs for Pt1000 temperature sensors and 1 iPWM input for reverse flow rate reading from a pump | control of 2 outputs (1 mech. relay, 1 optional 0-10V or PWM), 3 inputs for Pt1000 temperature sensors | control of 4 outputs (3 mech. relays, 1 optional 0-10V or PWM), 4 inputs for Pt1000 temperature sensors | control of 3 outputs (2 mech. relays, 1 optional 0-10V or PWM), 4 inputs for Pt1000 temperature sensors | control of 5 outputs (3 mech. relays, 2 optional 0-10V or PWM), 6 inputs for Pt1000 temperature sensors |
| Number of hydraulic variants for solar thermal and heating systems | 6 | 9 | 8 | 27 | 42 |
| Solar features | | | | | |
| 1 separate collector array | YES | YES | YES | YES | YES |
| 2 separate collector arrays | NO | NO | NO | YES *1 | YES |
| 1 solar consumer | YES | YES | YES | YES | YES |
| 2 solar consumers | NO | NO | NO | YES *4 | YES |
| 3 solar consumers | NO | NO | NO | NO | YES *4 |
| 2 separate solar thermal systems | NO | NO | NO | YES *6 | YES *6 |
| Collector protective cooling (pump cycles) | YES | YES | YES | YES | YES |
| Solar consumer night cooling | YES | YES | YES | YES | YES |
| Cooling by external heat exchanger | NO | NO | NO | YES *1*4 | YES *1*4 |
| CAN port | NO | NO | YES | YES | YES |
| Free differential function | NO | NO | NO | YES *5 | YES *5 |
| VFS flowmeter input | NO | NO | NO | NO | 2 x |
| PWM circulation pump speed control | YES | YES | YES | YES | 2 x |
| Features parallel with solar thermal system (one of them only) | | | | | |
| Switching of DHW heating by auxiliary heat source | YES | NO | YES *2 | YES | YES |
| DHW heating from thermal store | NO | NO | NO | YES | YES *7 |
| DHW recirculation | YES | NO | YES | NO | NO |
| Solid-fuel boiler function *8 | NO | NO | NO | YES | YES |
| Heating circuit return preheating | NO | NO | NO | YES | YES *7 |
| Features instead of solar thermal system (one of them only) | | | | | |
| Switching of DHW heating by auxiliary heat source | NO | YES *3 | NO | YES | YES |
| DHW heating from thermal store | NO | YES | NO | YES | YES |
| Solid-fuel boiler function *8 | NO | YES | NO | YES | YES |
| Universal thermostat | NO | YES | NO | YES | YES |
| dT differential function | NO | YES | NO | YES | YES |
| Heating circuit return preheating | NO | YES | NO | YES | YES |

- *1 systems with one solar consumer only
- *2 direct switching of AC3 power output up to 3 kW
- *3 without universal thermostat timer functions
- *4 systems with one solar array only
- *5 only as heating circuit return preheating or heat exchange functions
- *6 one collector to one solar consumer only
- *7 combination with DHW aux heating possible
- *8 switching of a circulation pump in a solid-fuel boiler primary circuit based on a temperature difference