

## 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.

### SRS1 T SOLAR CONTROLLER

SRS1 T 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

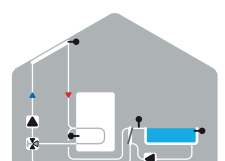
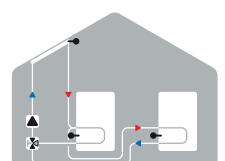
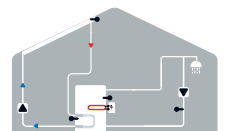
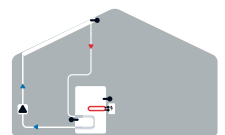
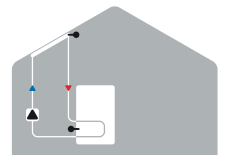
SRS3 E controller is designed for use with solar thermal systems with 2 independent solar arrays and one solar consumer or one solar array and up to 2 solar consumers or for 2 independent solar thermal systems. When connected with one solar array and one solar consumer also other functions can be used - 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.

### MOST COMMON LAYOUTS



## SOLAR CONTROLLERS - PARAMETER OVERVIEW



Name	SRS1T	STDC E	SRS2 TE	SRS3 E	SRS6 EP
<b>Code</b>	<b>17570</b>	<b>13164</b>	<b>14388</b>	<b>13166</b>	<b>13168</b>
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
<b>Solar features</b>					
1 separate collector array	YES	YES	YES	YES	YES
2 separate collector arrays	NO	NO	NO	YES <sup>1)</sup>	YES
1 solar consumer	YES	YES	YES	YES	YES
2 solar consumers	NO	NO	NO	YES <sup>4)</sup>	YES
3 solar consumers	NO	NO	NO	NO	YES <sup>4)</sup>
2 separate solar thermal systems	NO	NO	NO	YES <sup>6)</sup>	YES <sup>6)</sup>
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 <sup>1) 4)</sup>	YES <sup>1) 4)</sup>
CAN port	NO	NO	YES	YES	YES
Free differential function	NO	NO	NO	YES <sup>5)</sup>	YES <sup>5)</sup>
VFS flowmeter input	NO	NO	NO	NO	2 x
PWM circulation pump speed control	YES	YES	YES	YES	2 x
<b>Features parallel with solar thermal system (one of them only)</b>					
Switching of DHW heating by auxiliary heat source	YES	NO	YES <sup>2)</sup>	YES	YES
DHW heating from thermal store	NO	NO	NO	YES	YES <sup>7)</sup>
DHW recirculation	YES	NO	YES	NO	NO
Solid-fuel boiler function <sup>8)</sup>	NO	NO	NO	YES	YES
Heating circuit return preheating	NO	NO	NO	YES	YES <sup>7)</sup>
<b>Features instead of solar thermal system (one of them only)</b>					
Switching of DHW heating by auxiliary heat source	NO	YES <sup>3)</sup>	NO	YES	YES
DHW heating from thermal store	NO	YES	NO	YES	YES
Solid-fuel boiler function <sup>8)</sup>	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

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