EN

SELTRON
SMART HEATING

Constant temperature controller

ACD10

Warnings

Check the controller and its packaging carefully. If you see visible damage to the controller, do not use it. Installing a damaged product can be life-threatening.

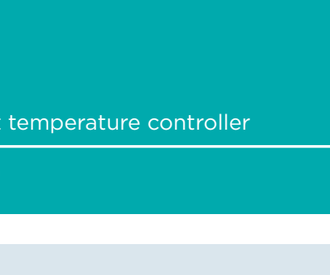
When adjusting the controller, pay attention to the correct opening direction of the valve. Wrong turning direction can lead to high or low temperatures in the system and consequently damage to the system.

When adjusting the controller, make sure you set the minimum and maximum value of requested temperatures correctly. Incorrectly selected limit values for setting the requested temperature lead to a wrong setup of requested temperature and, consequently, undesirable operation and/or damage to the system and user.

If the controller is installed in an environment where flooding or contact with water is possible, it shall be mounted above a possible water level or away from sources of water, so that it is not exposed to standing or dripping water. Contact of the controller with water can damage the controller and the person who is in contact with it.

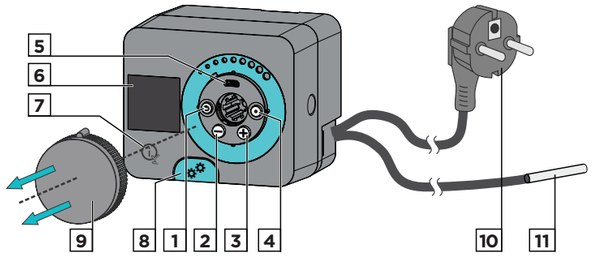
Every project with controller must have independent system protection for cases of too low or too high temperatures. The controller does not perform protection functions for cases of too high or too low temperatures in the system. High or low temperatures in the system can cause damage to the system and user.

Introduction



Controllers ACD10 are modern designed, microprocessor-driven devices made with digital and SMT technology.
The controller is provided as a constant temperature controller with actuator designed for heating and cooling applications. The most common use is to control the return temperature in the boiler and the stand-pipe temperature in the system.

Description of the controller



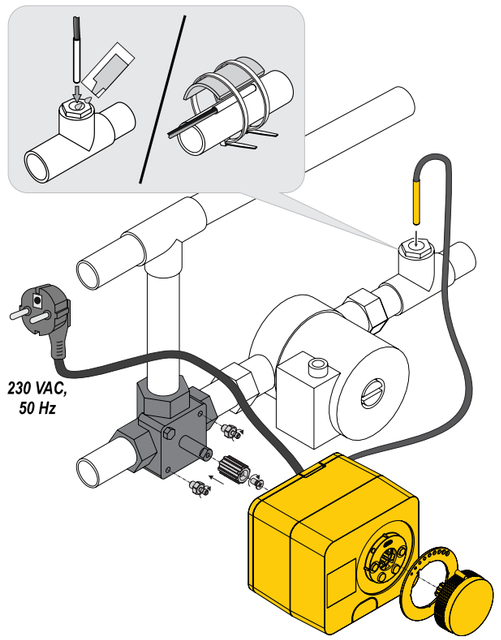
1. Button ⮌. Return back.
2. Button ⊖. Move to the left, decreasing.
3. Button ⊕. Move to the right, increasing.
4. Button ⊙. Menu entry, confirmation of selection.
5. USB port for software updates and connection to a personal computer.
6. Graphic display.
7. Button ⓘ. Help.
8. Manual operation clutch.
9. Manual movement button.
10. Pre-wired power cord with plug.
11. Pre-wired sensor.

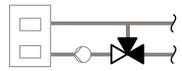
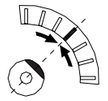
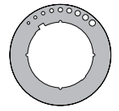
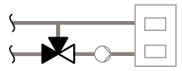
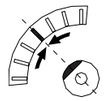
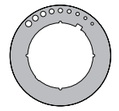
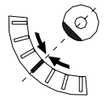
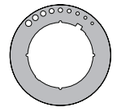
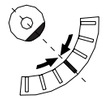
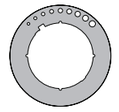
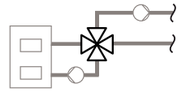
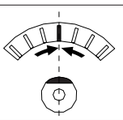
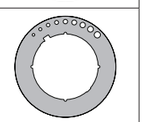
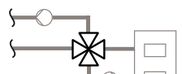
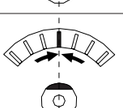
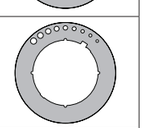
Installation of the controller

In a dry interior, the controller can be mounted directly on the mixing valve with the help of the linkage kit provided. Avoid close proximity to sources of strong electromagnetic field.

Each project with constant temperature controller ACD needs to base exclusively on customer design and calculations and needs to be in compliance with valid rules and regulations. Pictures, diagrams and text in this manual are intended solely as an example and the manufacturer does not accept any responsibility for them. If you use content of this manual as a base for your project, then you carry also full responsibility for it. Responsibility of publisher for unprofessional, wrong and false information and consecutive damage are explicitly excluded. We retain the right for technical errors, mistakes, changes and corrections without prior notice.

Installation of controlling devices should be done by an expert with suitable qualifications or by an authorised organisation. Before you deal with the main wiring, make sure that the main switch is switched off. You have to follow the rules for low-voltage installations IEC 60364 and VDE 0100, law prescriptions for prevention of accidents, law prescriptions for environmental protection and other national regulations.

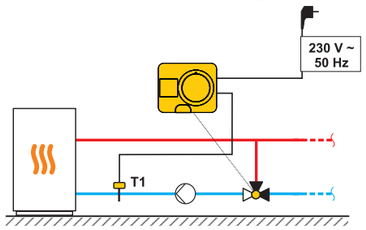


Scheme	Mixing valve position	Ring position
		
		
		
		
		
		

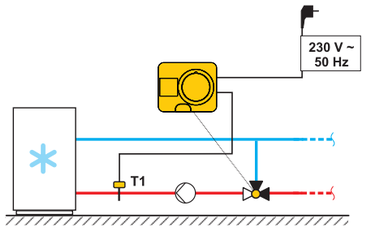
Hydraulic schemes

Installation schemes show the principle of operation and do not include all auxiliary and protection elements.

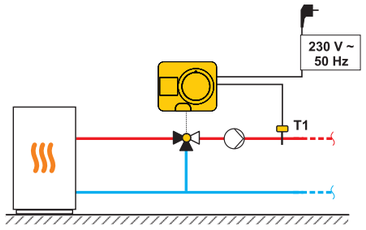
Scheme 1 - Control of return - heating



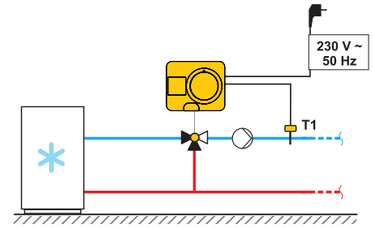
Scheme 1 - Control of return - cooling



Scheme 2 - Control of supply - heating

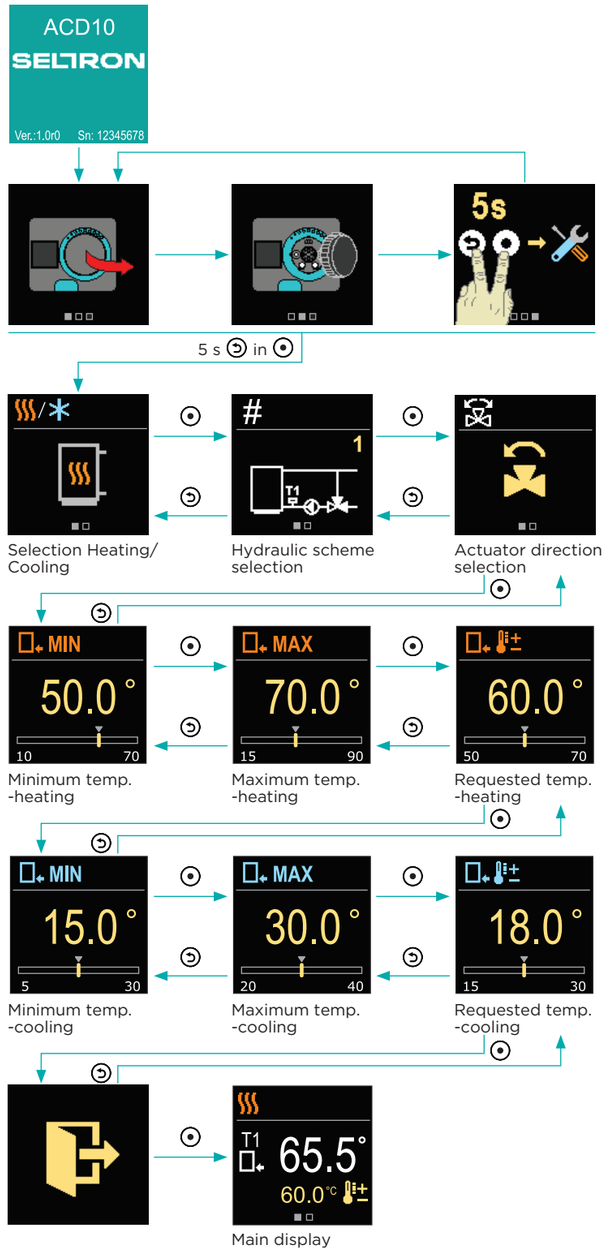


Scheme 2 - Control of supply - cooling



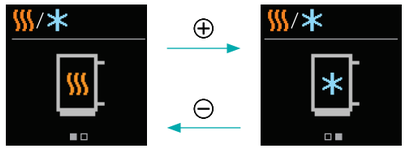
Commissioning of the controller

Controller is equipped with an innovative solution “Easy start” which enables the setup of controller in just few easy steps. When the controller is switched on for the first time and after the version of the program and the logo are displayed, the controller guides us to the initial setup with the animation on the display. Knob for manual operation must be removed to access the buttons. Initial setup is started by pressing the buttons ⮌ and ⊙ for 5 seconds.



Selecting heating or cooling operation

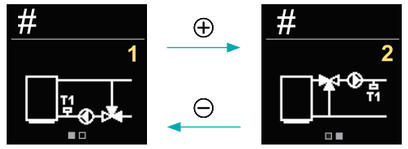
With the buttons ⊖ and ⊕ you can select the required operation mode - heating or cooling. Confirm the selected operating mode with the ⊙ button. If you accidentally selected the wrong operating mode, you can return to the operating mode selection with the ↩ button.



Heating Cooling

Selecting a hydraulic scheme

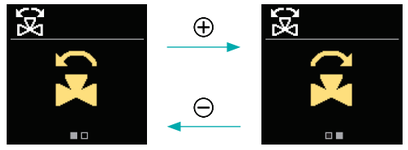
Here you select the hydraulic scheme for the controller operation.
Use the buttons ⊖ and ⊕ to navigate between schemes.
Confirm the selected scheme with the ⊙ button. If you accidentally selected the wrong scheme, you can return to the scheme selection with the ↩ button.



Control of return Control of supply

Select the opening direction of the mixing valve

Here you can select the opening direction of the mixing valve. Use the buttons ⊖ and ⊕ to navigate between directions. Confirm the selected direction with the ⊙ button. If you accidentally selected the wrong direction, you can return to the direction selection with the ↩ button.



Open in counter clockwise direction Open in clockwise direction

Setting the lower limit for the requested heating temperature

With the buttons ⊖ and ⊕ you can determine the lower limit setting of the requested temperature in heating mode. Confirm the setting with the ⊙ button.
If you accidentally selected the wrong lower limit, you can return to the lower limit selection with the ↩ button.

Setting the upper limit for the requested heating temperature

With the buttons ⊖ and ⊕ you can determine the upper limit setting of the requested temperature in heating mode. Confirm the setting with the ⊙ button.
If you accidentally selected the wrong uper limit, you can return to the upper limit selection with the ↩ button.

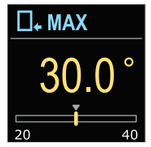
Setting the requested heating temperature

With the buttons ⊖ and ⊕ you can determine the requested temperature in heating mode. Confirm the setting with the ⊙ button.
If you accidentally selected the wrong requested temperature, you can return to the requested temperature selection with the ↩ button.

Setting the lower limit for the requested cooling temperature

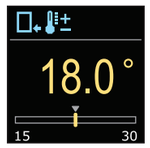
With the buttons ⊖ and ⊕ you can determine the lower limit setting of the requested temperature in cooling mode.
Confirm the setting with the ⊙ button.
If you accidentally selected the wrong lower limit, you can return to the lower limit selection with the ↩ button.

Setting the upper limit for the requested cooling temperature



With the buttons ⊖ and ⊕ you can determine the upper limit setting of the requested temperature in cooling mode.
Confirm the setting with the ⊙ button.
If you accidentally selected the wrong uper limit, you can return to the upper limit selection with the ↩ button.

Setting the requested cooling temperature



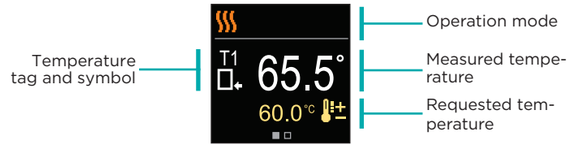
With the buttons ⊖ and ⊕ you can determine the requested temperature in cooling mode.
Confirm the setting with the ⊙ button.
If you accidentally selected the wrong requested temperature, you can return to the requested temperature selection with the ↩ button.

Symbol	*Description*
	Return-pipe - heating.
	Return-pipe - cooling.
	Stand-pipe - heating.
	Stand-pipe - cooling.

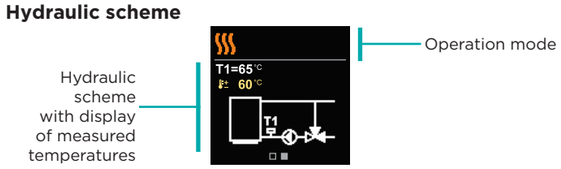
Basic screen

All the important information about the operation of the controller is displayed on the two basic screens. With the buttons ⊖ and ⊕ you can move between basic screens.

Temperatures



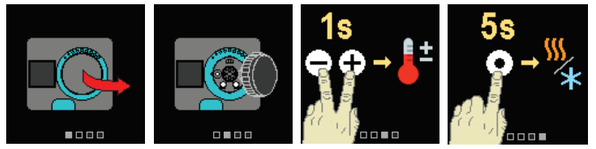
Hydraulic scheme



Symbol	*Description*
	Heating.
	Cooling.
	Valve rotation direction counter clockwise.
	Valve rotation direction counter clockwise.
	Manual operation - the clutch is activated.
	Sensor error.
	Requested temperature.
	Return-pipe temperature.
	Stand-pipe temperature.

Help

By pressing ⓘ we can start the display animation, which shows a shortcuts for setting the requested temperature and selecting the heating or cooling operation.



Setting the requested heating temperature

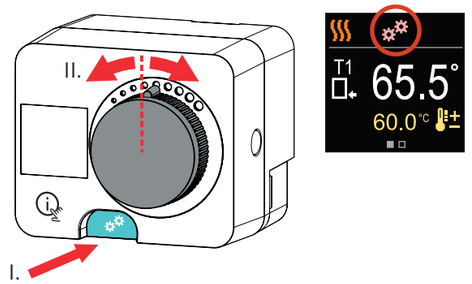
To set the requested temperature, press and hold the ⊖ and ⊕ keys for 1s. With the buttons ⊖ and ⊕ you can set the requested temperature. Confirm the setting with the ⊙ button.

Selecting heating or cooling operation

To set the heating or cooling, press and hold the ⊙ button for 5 s. Use the ⊖ and ⊕ keys to select the requested operating mode. Confirm the setting with the ⊙ button.

Clutch and manual valve movement

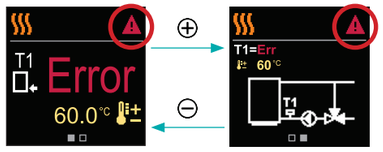
Manual movement of the mixing valve is activated by pressing the clutch button I. The requested position of the mixing valve is set by turning the rotary knob II. With renewed pressure on the clutch button I, manual movement is deactivated.



When the clutch is activated, the control of the mixing valve switches off. The clutch symbol appears on the display.

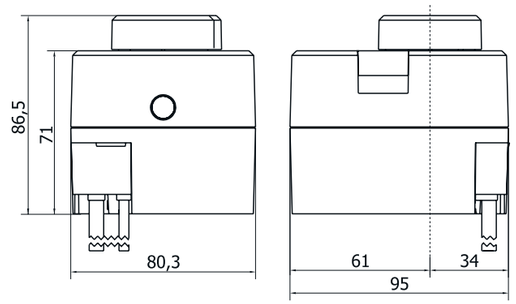
Error

In the event of sensor malfunction, the controller informs us with a red symbol on the display.



Basic screen Basic screen

Dimensions



Technical data

Technical information	*Value*
Torque	5 Nm
Rotation angle	90 <°
Rotation speed	2 min / 90 <°
Type of operation	3-point, PID
Supply voltage	230 V ~ , 50 Hz
Max. power consumption	5 VA
Degree of protection	IP42 according to EN 60529
Safety class	I according to EN 60730-1
Dimensions (W x L x H)	86.5 x 95 x 80.3 mm
Weight	800 g
Material	PC

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