

# Compact constant temperature controllers

## ACD10 | ACD20

### Presentation



Constant temperature controllers ACD10 and ACD20 are intended for control of constant temperature in pipeline. Setup of controller is done with keypad and a graphical display, which is used to indicate actual temperatures and other data. Built-in actuator is intended for control of mixing valve. Controller is plugged to power network with prewired power cord.

Controller ACD10 is prewired with temperature sensor and is intended for control of mixing valve. It features simple user interface with setup of controller in only few steps.

Controller ACD20 is prewired with sensor connection box for 2 sensors and is intended for control of mixing valve and circulation pump. It features advanced multi-lingual user interface to setup controller with parameters.

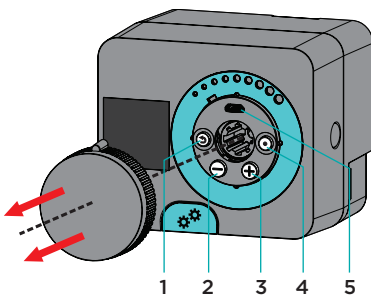
#### Typical application

- Boiler return-pipe temperature or any other energy source temperature control.
- Heating or cooling system supply temperature control.

#### Features

- 3 preset hydraulic schemes.
- Display of actual temperature and other operation data.
- Heating or cooling operation mode.
- Overview of temperatures for the past week.
- Display of notifications and warnings about the system operation.
- Control and indication of circulation pump operation.
- Auxiliary sensor for heat source temperature.
- Selection and indication of valve turning direction.
- Possibility to adjust mixing valve control (PID).
- Installation sets for many mixing valves on the market.
- "Click" fixing system.
- Auto orientation of display.

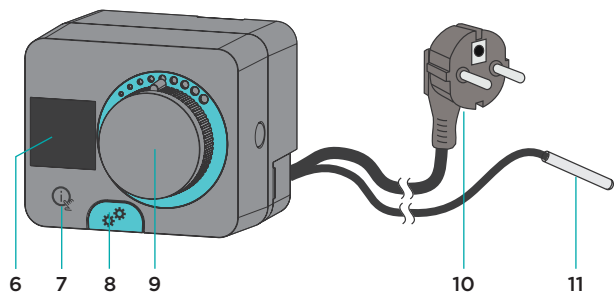
### Description



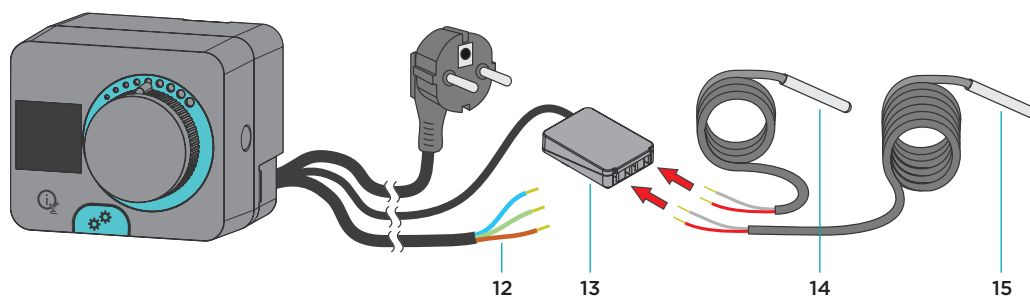
- 1 - Escape button
- 2 - Button for step backward or value decreasing
- 3 - Button for step forward or value increasing
- 4 - Button for Menu entering and selection confirmation
- 5 - USB connector for software update and connecting personal computer

## Opis

### ACD10



### ACD20




- 6 - Graphic display (240 x 240)
- 7 - Help button
- 8 - Clutch for manual operation
- 9 - Removable knob
- 10 - Prewired power cord (2 m)
- 11 - Prewired temperature sensor (0,6 m)
- 12 - Prewired cable for circulation pump (0,5 m)
- 13 - Prewired sensor connection box for two temperature sensors
- 14 - Temperature sensor (1 m)
- 15 - Temperature sensor (3 m)

Typical application	ACD10	ACD20
Boiler return temperature or any other energy source temperature control	●	●
Heating or cooling system supply temperature control	●	●
<b>Technical characteristics</b>		
No. of preset hydraulic schemes	2	3
No. of solid state relays	—	1
No. of temperature sensor inputs	1	2
Allowed temperature setting in the range 10÷90 °C	●	●
Auxiliary sensor for measuring the source temperature	—	●
<b>Heating system protection</b>		
Overheating protection	●	●
Undercooling protection	●	●
Antiblock function for the mixing valve	●	●
Antiblock function for the pump	—	●
<b>Data display</b>		
Display of notifications and warnings about the system operation	●	●
Display of actual temperature and other operation data	●	●
Detailed display of temperatures for the current day	●	●
Overview of temperatures for the past week	●	●
Indication of valve turning direction	●	●
Control and indication of circulation pump operation	—	●
<b>Remote access</b>		
Possibility of USB connection to a PC	●	●
<b>Setup and installation</b>		
Startup wizard for an easy and quick device startup	●	●
14-language user interface: EN, DE, FR, NL, PL, ES, SL, IT, CZ, SK, HR, RU, HU, UA	—	●
Connector system for sensor connection	—	●
Setting up the operation by selecting the hydraulic scheme	●	●
Selection of valve turning direction	●	●
Logging and display of changes made to the setup	—	●
Option for retrieval of the basic setup in the event of data loss or unwanted changes	●	●
Installation sets for many mixing valves on the market	●	●
The sensor is pre-wired into the controller	●	—
"Click" fixing system	●	●
Sensors with a connector for a "Plug & Play" installation	—	●
The power cord is fitted with a plug	●	●

## Outlined functions



### Manual mode clutch

The manual mode clutch of the ACD compact controller is activated by pressing the  button. When the clutch is activated, the mixing valve control and, where appropriate, also the circulation pumps are switched off to save energy.



### Quick installation

Innovative accessories and installation system provides a quick installation and removal of the ACD compact controller from/to the mixing valve, mostly without any tools. There are accessories for most mixing valves available on the market.



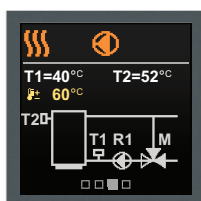
### Setup buttons

The buttons for setting the controller are located under the manual turning knob. That prevents unwanted access to the controller setup.



### Plug-in connectors

The ACD compact controller has a built-in connector for plug-in connection of the power cord. That provides a simple cable replacement in case of damage.

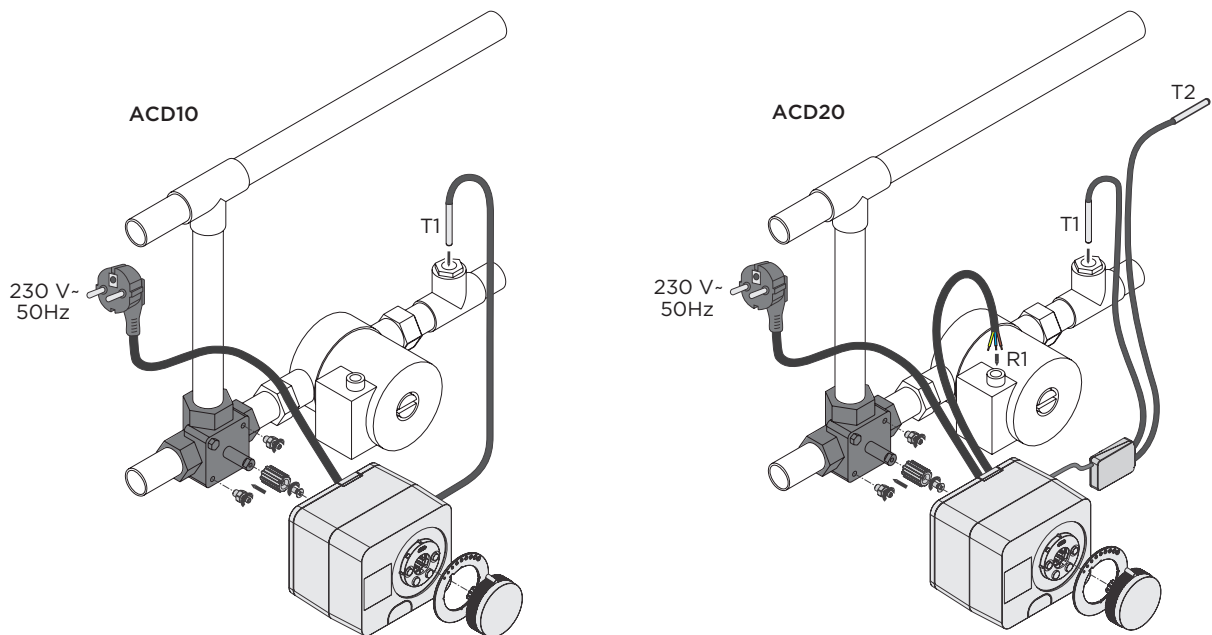


### Graphic display

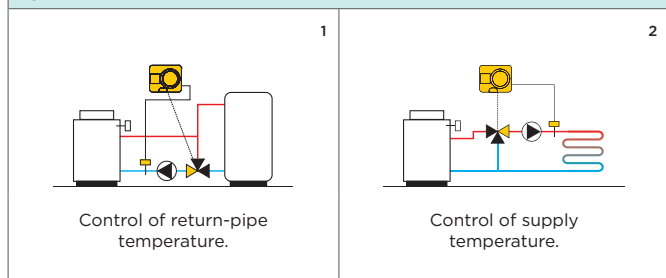
Color graphic display with resolution of 240 x 240 dots provides detailed display of graphics and texts.

Technical specifications	ACD10	ACD20
TFT display	•	•
Keyboard	•	•
Own consumption		Max. 3.5 W
Energy consumption in the standby mode		Max. 0.25 W
Torque		6 Nm
Running angle		90 < °
Running speed		2 min 90 < °
Mixing valve control		3-point PID
Circulation pump control	—	2-point (ON/OFF)
Control output	—	Solid state relay, 1 (1) A-, 250 V-
Connection voltage		230 V-, 50 Hz
Maximum own consumption		5 W
Clock power supply		CR1025 battery (Li-Mn) 3 V
Clock accuracy		+/-1 s (24 h) at 20 °C
Degree of protection		IP42 according to 60529
Safety class		I according to EN 60730-1
Type of temperature sensors		Pt1000
Housing material		PC - dark grey
Operating temperature		0÷50 °C
Storage temperature		-20÷65 °C
Product weight	900 g	1.000 g
No. of pieces in the packaging unit	24 pcs	12 pcs
Dimensions		

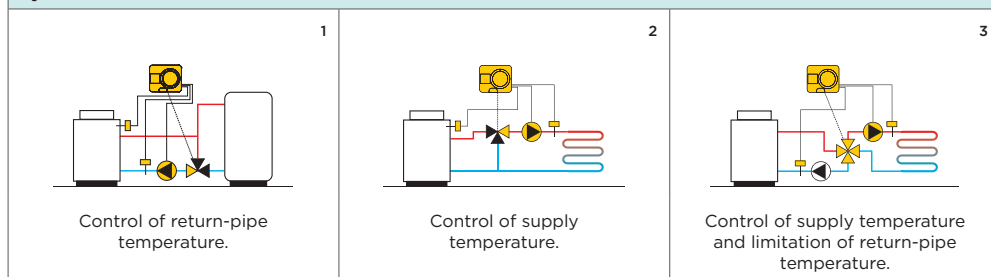
Electrical connection



Hydraulic schemes for ACD10, ACD20



Hydraulic schemes for ACD20



Item	Order code	Description
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1ACD1010-050	Compact constant temperature controller SELTRON ACD10, with TF/Pt sensor
1ACD2011-050	Compact constant temperature controller SELTRON ACD20, with sensors (2×TF/Pt)

#### Accessories

1AVDMSA+NNO	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip (5 Nm)
1AVDMSB+NNO	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip (10 Nm+)
1AVDMSC+NNO	Afriso ARV series, Danfoss HFE series, Esbe 3F & 4F & T series
1AVDMSD+NNO	Meibes new valve, Brv
1AVDMSE+NNO	Landis & Gyr, Siemens - type VBI, type VBF
1AVDMSF+NNO	Meibes old valve, Wita
1AVDMSG+NNO	Esbe VRG series
1AVDMSH+NNO	Brv 1060 & 1050 series, Herz MV3P & MV4P series, Womix MIX M
1AVDMSI+NNO	Honeywell V544.., V543..
1AVDMSJ+NNO	Paw K32, K33, K34
1AVDMSK+NNO	Danfoss HRB, HRE
1AVDMSL+NNO	Vexve AMV Series, ABV Series
1AVDMST+NNO	Ball valve ISO 5211, flange F03, axis L/R 9 mm
1AVDMSU+NNO	Ball valve ISO 5211, flange F04, axis L/R 9 mm
1AVDMSV+NNO	Ball valve ISO 5211, flange F04, axis L/R 11 mm
1AVDMSW+NNO	Ball valve ISO 5211, flange F05, axis L/R 11 mm
1TFPTC1MP-000	Immersion temperature sensor SELTRON TF/Pt, 1 m cord, with a 3.5 mm connector
1TFPTC3MP-000	Immersion temperature sensor SELTRON TF/Pt, 3 m cord, with a 3.5 mm connector

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