SELTRON
SMART HEATING

www.seltron.eu

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Catalogue

Heating controllers Seltron



COMPANY DATA

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Differential controllers
SGC16H | SGC26H | SGC36HV | SGC67HV

Presentation



SGC universal differential controllers are intended for the control of solar systems for domestic hot water heating as well as a support system for room heating. Advanced operation algorithms ensure an optimal usage of solar energy and provide the control of energy efficient circulation pumps.
The SGC controllers have integrated preset hydraulic schemes that provide a fast and simple installation.

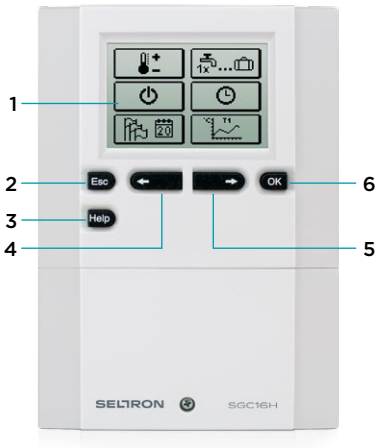
Typical application

- In domestic hot water heating systems with flat or vacuum collectors.
- In domestic hot water heating systems with auxiliary heat sources.
- In storage tank heating systems using a solar system and auxiliary heat sources.
- In pool heating systems.
- For a single-stage storage tank loading.
- For a two-stage storage tank loading.

Features

- Up to 65 preset hydraulic schemes.
- Up to 3 freely programmable outputs.
- Speed (RPM) control of standard pumps.
- Speed control of energy-saving pumps (PWM, 0÷10 V).
- Control of collector field systems.
- Control of storage tank systems.
- Possibility to control heating systems using a solid fuel boiler.
- Option of using stratified storage tank loading with a quick start function in the case of a cold storage tank.
- Wizard for an easy and quick device start-up.
- Measurement and display of generated energy.
- Solar system protection when collectors are overheating.
- Notifications on the activated protection functions and warnings about system failures.
- Possibility to simulate sensors and analyse the system operation.
- Remote control with the help of the SeltronHome system.

Description of settings buttons



1 – Graphic display.
2 – Esc Move backwards key.
3 – Help Help key.
4 – ← Move left or reduction key.
5 – → Move right or increase key.
6 – OK Menu entry or selection confirmation key.

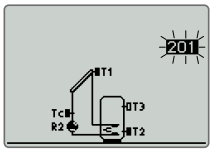
Typical application	SGC16H	SGC26H	SGC36HV	SGC67HV
In domestic hot water heating systems with flat or vacuum collectors	●	●	●	●
In domestic hot water heating systems with auxiliary heat sources	●	●	●	●
In storage tank heating systems using a solar system and auxiliary heat sources	—	●	●	●
In pool heating systems	—	●	●	●
For a single-stage storage tank loading	—	—	●	●
For a two-stage storage tank loading	—	—	—	●
Technical characteristics				
No. of preset hydraulic schemes	5	22	53	65
No. of mechanical relays	—	1	1	4
No. of solid state relays	1	1	2	2
No. of temperature sensor inputs	6	6	6	7
Number of collector fields	1	2	2	2
No. of storage tanks	1	2	3	3
Measurement of the energy obtained (kWh)	●	●	●	●
Option for pulse meter flow measurement (l/min)	●	●	●	●
Possibility for flow measurement with a Vortex sensor VFS	—	—	●	●
Speed control for energy-saving pumps (PWM, 0÷10 V)	1 pump	1 pump	2 pumps	2 pumps
Speed control for standard pumps (RPM)	1 pump	1 pump	2 pumps	2 pumps
Free programming option	—	1 output	2 outputs	3 outputs
System control				
Collector fields	1	2	2	2
Storage tanks	1	up to 2	up to 3	up to 3
Solar system domestic hot water heating and an auxiliary heat source	—	●	●	●
Heating support	—	●	●	●
Pool heating	—	●	●	●
Using a solid fuel boiler	—	—	—	●
Quick cold storage tank start function	—	—	—	●
Heat source control				
Flat or vacuum collectors	●	●	●	●
Solid fuel boiler	●	●	●	●
Solid fuel boiler with a pellet burner	—	●	●	●
Liquid fuel boiler	—	●	●	●
Combined boiler	—	●	●	●
Gas flow boiler	—	●	●	●
Heat pump	—	●	●	●
Storage tank	●	●	●	●
Auxiliary heating using electric heater	—	●	●	●
Options for switching on auxiliary energy sources				
The controller features the option of an auxiliary source for heating the water to the minimum temperature	●	●	●	●
The option for starting the primary energy source immediately or only when the water cannot be heated in a certain period of time	—	●	●	●
The option for configuring the time during which we allow water heating only by using collectors – the controller will not switch on the primary heat source if the calculations show that the water can be heated only by collectors	—	●	●	●

Operation mode with several storage tanks	SGC16H	SGC26H	SGC36HV	SGC67HV
Constant operation in the “OPTIMUM” mode means an optimum use of solar energy for heating all of the storage tanks taking into account the preferred storage tank	—	●	●	●
The "AUTO" operation mode automatically switches between winter and summer modes according to a preset calendar	—	●	●	●
Constant operation in the “SUMMER” mode means the heating of only the preferred storage tank, other storage tanks are heated only when the preferred one reaches the desired temperature	—	●	●	●
Continuous operation in the “WINTER” mode means an alternating parallel heating of all storage tanks	—	●	●	●
Heating of all storage tanks	—	●	●	●
User functions				
Domestic hot water heating according to the time programme	●	●	●	●
Holiday operation mode	●	●	●	●
One-time domestic hot water heating	●	●	●	●
Heating system protection				
Anti-legionella protection (for a controlled energy source)	●	●	●	●
Collector frost protection	●	●	●	●
Forced pump start at the highest collector temperature	●	●	●	●
Switching off of the pump when the safety temperature has been exceeded	●	●	●	●
Solar system protection when collectors are overheating	●	●	●	●
Storage tank overheating protection	●	●	●	●
Storage tank recooling to the desired temperature	●	●	●	●
Periodic starts of pumps during a period of inactivity	●	●	●	●
A comprehensive overview of the heating system operation				
Graphic display of temperatures according to days of the last week	●	●	●	●
Detailed display of temperatures for the current day	●	●	●	●
Archiving and graphic display of the solar energy obtained	●	●	●	●
Notifications on the activated protection functions and warnings about system failures	●	●	●	●
Possibility to simulate sensors and analyse the system operation	●	●	●	●
Remote access				
Possibility of USB connection to a PC	●	●	●	●
Connectivity to the SeltronHome platform providing remote control using a smartphone or tablet	●	●	●	●
Setup and installation				
Wizard for an easy and quick device start-up	●	●	●	●
13-language user interface: EN, DE, FR, NL, PL, ES, SL, IT, CS, LT, GR, HU, HR	●	●	●	●
Setting up the operation by selecting the hydraulic scheme	●	●	●	●
“Help” button for quick help with the setup	●	●	●	●
Graphically adjustable time programmes	●	●	●	●
Option to simulate the system operation	●	●	●	●
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	●	●	●	●
Option for programming free outputs	●	●	●	●
Possibility of wall or DIN rail installation	●	●	●	●
Simple installation and connection	●	●	●	●

Outlined functions



Step 1



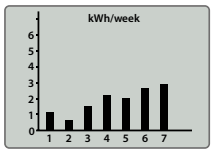
Step 2

Start-up wizard

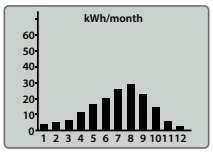
The SGC controller is equipped with a start-up wizard, which takes you through the initial setup of the controller in 2 steps.

Step 1: language selection.

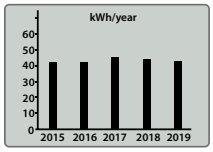
Step 2: hydraulic scheme selection.



Display by days



Display by months



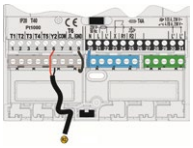
Display by years

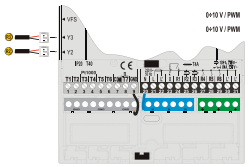
Measurement of the energy obtained

When the solar system is also used for domestic hot water heating, we want to know how much heating energy has been obtained from the solar system.

The SGC controllers provide an informative and accurate measurement of the solar energy obtained and the display of the data in weekly, monthly and yearly diagrams.

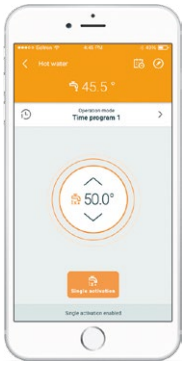
- For informative measurements of the solar energy obtained, the maximum reading of the medium flow from the mechanical meter must be entered in the controller setup.
- For accurate measurements of the solar energy obtained, a flow meter with a pulse generator or a Vortex flow meter (VFS) must be installed in the solar system.


SGC16H, SGC26H


SGC36HV, SGC67HV

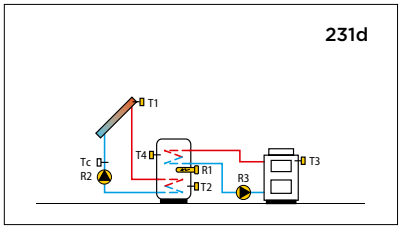
Connection of an energy-saving circulation pump with external controlled signal

The SGC controller features the speed control of energy-saving circulation pumps with external controlled PWM signal or 0÷10 V. This type of speed control is possible with R2 and R3 relay outputs. All SGC controllers feature the R2 relay output, while the SGC36HV and SGC67HV controllers feature the R3 relay output.



Remote control with the help of SeltronHome system

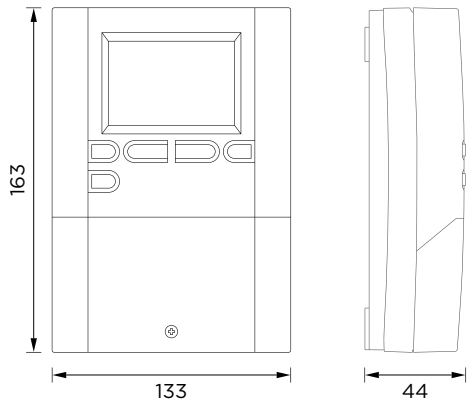
The SGC controllers may be connected to the SeltronHome platform, which provides the heating remote control using a smartphone or tablet.
Remote control is enabled through the CLAUSIUS application for the end user and the KELVIN app for service technicians.
With the application you can, for example, switch on one-time domestic hot water heating process outside of a time programme.



Typical hydraulic scheme

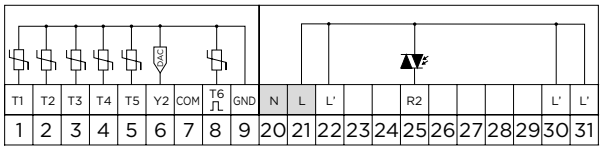
Solar collectors, domestic hot water storage tank, solid fuel boiler, auxiliary heating with electricity.

Example: hydraulic scheme 231d.

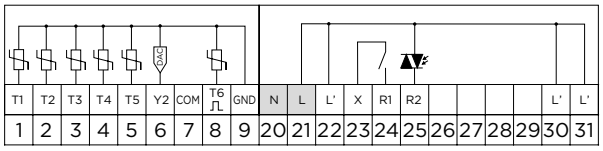
Technical specifications	SGC16H	SGC26H	SGC36HV	SGC67HV
Backlit graphic display	•	•	•	•
Operating hours meter	•	•	•	•
Weekly program timer	•	•	•	•
Connection voltage	230 V~, 50 Hz			
Own consumption	2.5 W			
Energy consumption in the standby mode	Max. 0.5 W			
No. of inputs	6 pcs temperature sensor (Pt 1000) 1 pc pulse input			7 pcs temperature sensor (Pt 1000) 1 pc pulse input
Additional inputs	—	—	1 pc Grundfos VFS flow meter	
No. of outputs	1 pc Triac for speed control (R2) 1 pc PWM or analogue 0÷10 V	1 pc Triac for speed control (R2) 1 pc PWM or analogue 0÷10 V (Y2)	2 pcs Triac for speed control (R2, R3) 1 pc relay (R1) 2 pcs PWM or analogue 0÷10 V (Y1, Y2)	2 pcs Triac for speed control (R2, R3) 4 pcs relay (R1, R4, R5, R6) 2 pcs PWM or analogue 0÷10 V (Y2, Y3)
Relay outputs	4 (1) A~, 230 V~			
Triac outputs	1 (1) A~, 230 V~			
Clock power supply	Battery CR2032 (Li-Mn) 3 V			
Clock accuracy	+/-1 s (24 h) at 20 °C			
Degree of protection	IP20/EN60529			
Safety class	I according to EN 60730-1			
Operation mode	1B according to EN 60730-1			
Type of temperature sensors	Pt1000 or KTY10			
Housing material	ASA – thermoplastic			
Permissible ambient temperature	0÷40 °C			
Storage temperature	-20÷65 °C			
Product weight	400 g	400 g	440 g	460 g
No. of pieces in the packaging unit	6 pcs			
Dimensions				

Electrical connection

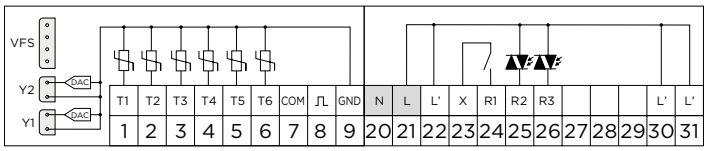
SGC16H



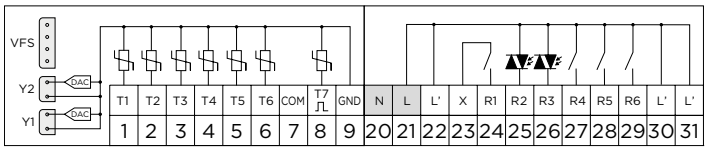
SGC26H



SGC36HV

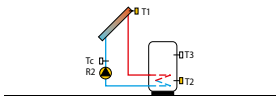


SGC67HV



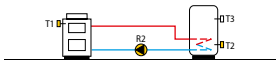
Hydraulic schemes for SGC16H, SGC26H, SGC36HV, SGC67HV

201



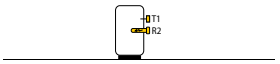
Solar collectors, domestic hot water storage tank.

202



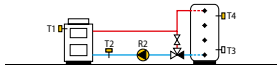
Solid fuel boiler, domestic hot water storage tank.

203



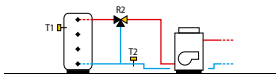
Domestic hot water storage tank, electric heater.

204



Solid fuel boiler, storage tank.

205



Heating support with a storage tank.

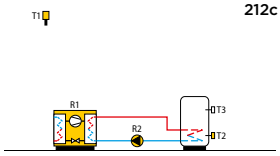
Hydraulic schemes for SGC26H, SGC36HV, SGC67HV

212b



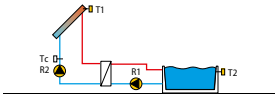
Liquid fuel boiler, domestic hot water storage tank.

212c



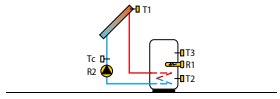
Heat pump, domestic hot water storage tank.

213



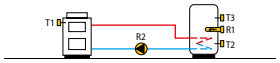
Solar collectors, pool.

214



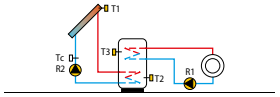
Solar collectors, domestic hot water storage tank, auxiliary heating with electricity.

215



Solid fuel boiler, domestic hot water storage tank, auxiliary heating with electricity.

216



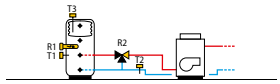
Solar collectors, domestic hot water storage tank, removal of excess heat.

217



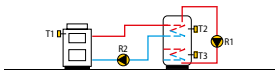
Domestic hot water storage tank, thermostat for heating R2, cooling thermostat R1.

218



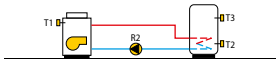
Heating support with a storage tank, auxiliary heating of domestic hot water with a storage tank.

219



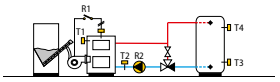
Solid fuel boiler, domestic hot water storage tank.

220



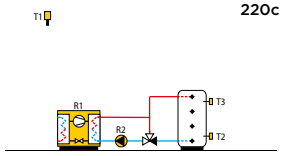
Liquid fuel boiler, domestic hot water storage tank.

220b



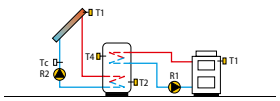
Pellet boiler, storage tank.

220c



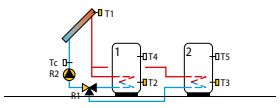
Heat pump, storage tank.

221



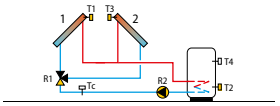
Solar collectors, domestic hot water storage tank, solid fuel boiler.

222



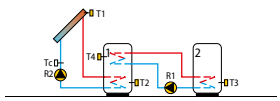
Solar collectors, two domestic hot water storage tanks, switchover.

223



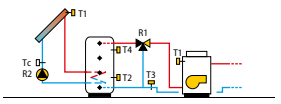
Solar collectors east-west, domestic hot water storage tank, switchover.

224



Solar collectors, two domestic hot water storage tanks, heat transfer to domestic hot water heater No. 2.

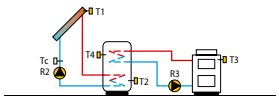
225



Solar collectors, heating support with a storage tank.

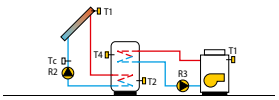
Hydraulic schemes for SGC36HV, SGC67HV

231



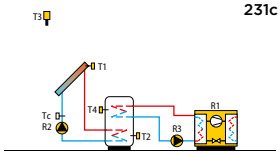
Solar collectors, domestic hot water storage tank, solid fuel boiler.

231b



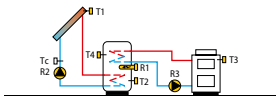
Solar collectors, domestic hot water storage tank, liquid fuel boiler.

231c



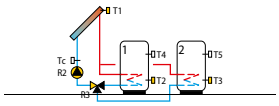
Solar collectors, domestic hot water storage tank, heat pump.

231d



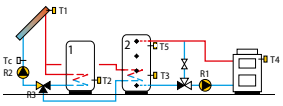
Solar collectors, domestic hot water storage tank, solid fuel boiler, auxiliary heating with electricity.

232



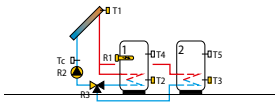
Solar collectors, two domestic hot water storage tanks, switchover.

232b



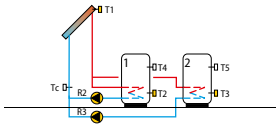
Solar collectors, domestic hot water storage tank, storage tank, switchover, solid fuel boiler.

232c



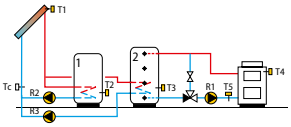
Solar collectors, two domestic hot water storage tanks, switchover, electric heater.

233



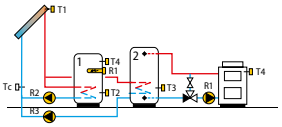
Solar collectors, two domestic hot water storage tanks, two pumps.

233b



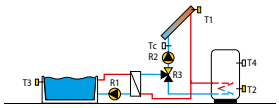
Solar collectors, domestic hot water storage tank, storage tank, switchover, solid fuel boiler.

233c



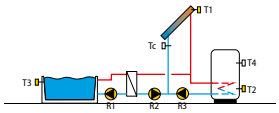
Solar collectors, domestic hot water storage tank, storage tank, switchover, electric heater, solid fuel boiler.

234



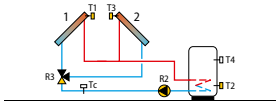
Solar collectors, domestic hot water storage tank, pool, switchover.

234b



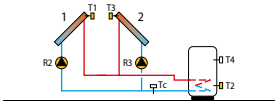
Solar collectors, domestic hot water storage tank, pool, two pumps.

235



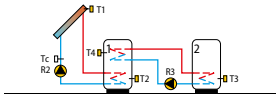
Solar collectors east-west, domestic hot water storage tank, switchover.

236



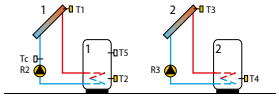
Solar collectors east-west, domestic hot water storage tank, two pumps.

237



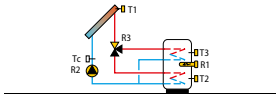
Solar collectors, two domestic hot water storage tanks, heat transfer to domestic hot water storage tank No. 2.

238



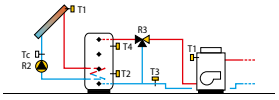
Solar collectors, domestic hot water storage tank, two separate circuits.

239



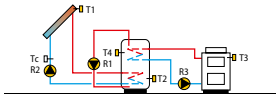
Solar collectors, domestic hot water storage tank, switchover up/down, auxiliary heating with electricity.

240



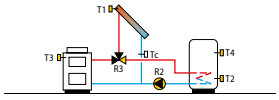
Solar collectors, heating support with a storage tank.

241



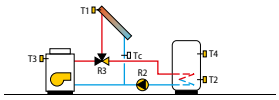
Solar collectors, domestic hot water storage tank, solid fuel boiler.

243



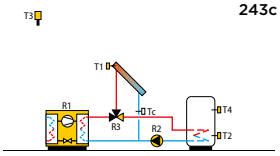
Solid fuel boiler, solar collectors, domestic hot water storage tank, switchover.

243b



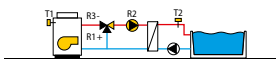
Liquid fuel boiler, solar collectors, domestic hot water storage tank, switchover.

243c



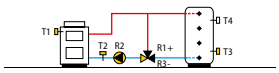
Heat pump, solar collectors, domestic hot water storage tank, switchover.

244



Pool heating control.

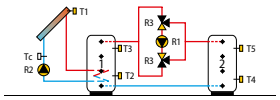
245



Solid fuel boiler, return line control.

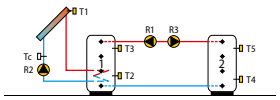
Hydraulic schemes for SGC36HV, SGC67HV

246



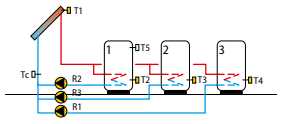
Reversible heat transfer between the main and auxiliary storage tank, switchover.

246b



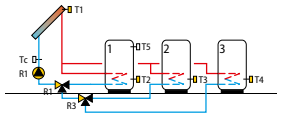
Reversible heat transfer between the main and auxiliary storage tank, two pumps.

247



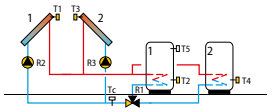
Solar collectors, three domestic hot water storage tanks, three pumps.

247b



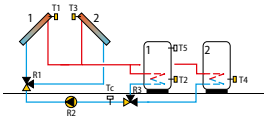
Solar collectors, three domestic hot water storage tanks, switchover.

248



Solar collectors east-west, two pumps, two domestic hot water heaters, switchover.

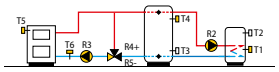
248b



Solar collectors east-west, domestic hot water storage tank, two pumps.

Hydraulic schemes for SGC67HV

261



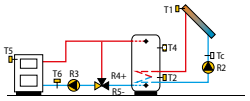
Solid fuel boiler, storage tank, domestic hot water storage tank.

261b



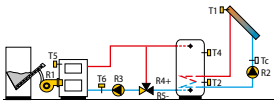
Pellet boiler, storage tank, domestic hot water storage tank.

262



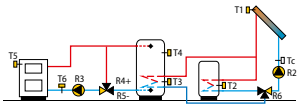
Solid fuel boiler, storage tank, solar collectors.

262b



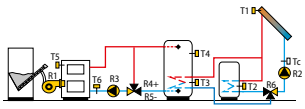
Pellet boiler, storage tank, solar collectors.

263



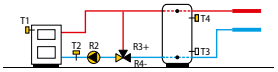
Solid fuel boiler, storage tank, domestic hot water storage tank, solar collectors, switchover.

263b



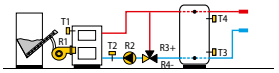
Pellet boiler, storage tank, domestic hot water storage tank, solar collectors, switchover.

291



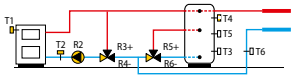
Solid fuel boiler, constant return line temperature control, storage tank.

291b



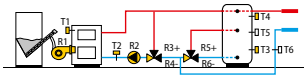
Pellet boiler, constant return line temperature control, storage tank.

292



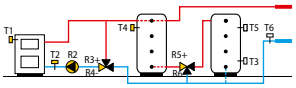
Solid fuel boiler, constant return line temperature control, storage tank – stratified loading.

292b



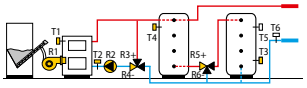
Pellet boiler, constant return line temperature control, storage tank – stratified loading.

293



Solid fuel boiler, constant return line temperature control, two storage tanks – stratified loading.

293b



Pellet boiler, constant return line temperature control, two storage tanks – stratified loading.

Item	Order code	Description
	2SGC16H00-010	Differential controller SELTRON SGC16H
	2SGC26H00-010	Differential controller SELTRON SGC26H
	2SGC36HV00-010	Differential controller SELTRON SGC36HV
	2SGC67HV00-010	Differential controller SELTRON SGC67HV
	2SGC16H30-010	Differential controller SELTRON SGC16H, with sensors (3×TF/Pt)
	2SGC26H40-010	Differential controller SELTRON SGC26H, with sensors (4×TF/Pt)
	2SGC36HV40-010	Differential controller SELTRON SGC36HV, with sensors (4×TF/Pt)
	2SGC67HV50-010	Differential controller SELTRON SGC67HV, with sensors (5×TF/Pt)
Accessories		
	1TFPT-000	Immersion temperature sensor SELTRON TF/Pt
	1VFPT-000	Surface temperature sensor SELTRON VF/Pt
	1AVD0532M210-030	Actuator SELTRON AVD 05, 3-point, 5 Nm, 2 min, 230 V~
	1AVD0521M210-030	Actuator SELTRON AVD 05R, 2-point, 5 Nm, 1 min, 230 V~
	1SVC25+NN0	Pulse flow meter SVC 25 (up to 2.5 m³/h, 40 l/min)
	1GWD3E-050	Communication module SELTRON GWD3E

Zone controllers
ZCE6 Basic | ZCE6 Advance

Presentation



ZCE6 controllers have been designed for the control of zone heating and/or cooling. The control is carried out using thermal actuators on the distributor valves based on the reference temperatures obtained from room units. There can be six independent temperature zones with the possibility of controlling fourteen circuits. The ZCE6 Advance controllers also feature the control of the energy source, mixing valve and circulation pump.

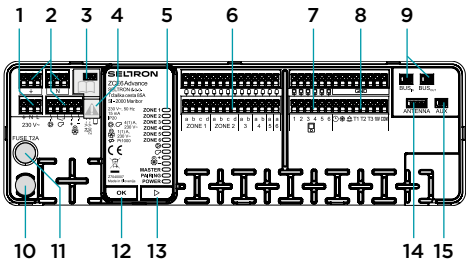
Typical application

- Floor heating or cooling system control.
- Wall or ceiling heating or cooling system control.
- Convector heating or cooling system control.

Features

- Up to 3 preset hydraulic schemes.
- Control of 6 independent temperature zones.
- Possibility of selecting supply voltage for thermal actuators: for 24 V~ or 230 V~.
- By connecting an antenna, also wireless room units can be connected to the controller, among others as a combination of a wired and wireless room unit.
- Completely quiet control of thermal actuators with solid state relays.
- Circulation pump control.
- Energy source control.
- Supply temperature control with mixing valve.
- Possibility of joining temperature zones into one homogeneous zone.
- Option of a BUS connection of multiple controllers.

Description of settings buttons

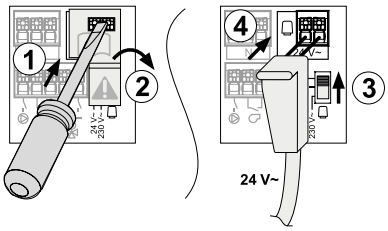


1 – Connection terminals for controller power supply (230V ~).
2 – Connection terminals for controlling circulation pump, source and mixing valve.*
3 – Connection terminals for 24V ~ controlling of thermal actuators.**
4 – Selector switch for the control voltage of thermal actuators.**
5 – LED lights for operation signalising.
6 – Connection terminals for controlling thermal actuators.
7 – Connection terminals for connecting wired room units.
8 – Connection terminals for connecting temperature sensors and digital inputs.
9 – Connection terminals for controller BUS connection.
10 – Spare electrical fuse.
11 – Electrical fuse.
12 – Enter key. OK
13 – Selection key. ▷
14 – Connection terminals for the antenna of wireless room units.
15 – AUX connection terminals.

* Only with ZCE6 Advance.
** Connection terminals and switch are located under protective cover.

Typical application	ZCE6 Basic	ZCE6 Advance
Floor heating or cooling system control	●	●
Wall or ceiling heating or cooling system control	●	●
Convector heating or cooling system control	●	●
Technical characteristics		
Control of 6 independent temperature zones	●	●
Possibility of selecting supply voltage for thermal actuators: for 24 V~ or 230 V~	●	●
By connecting an antenna wired or wireless room units or a combination of both can be connected to the controller	●	●
Completely quiet control of thermal actuators with solid state relays	●	●
Max. no. of room units	6	6
Circulation pump control	—	●
Supply temperature control with mixing valve	—	●
Possibility of joining temperature zones into one homogeneous zone.	●	●
Possibility of energy source control	—	●
No. of temperature sensor inputs	3	3
No. of digital inputs	3	3
No. of analogue outputs	1	1
No. of outputs (zones/other outputs)	6/0	6/4
Max. number of controllers in a BUS connection	6	6
System control		
Floor heating or cooling system control	●	●
Wall or ceiling heating or cooling system control	●	●
Convector heating or cooling system control	●	●
Heating circuits control		
Control of the supply line constant temperature	—	●
Weather-compensated supply line temperature control	—	●
Energy source control		
Source on/off	—	●
User functions		
Room heating or cooling according to the time programme	●	●
Automatic winter/summer mode switchover	●	●
PARTY function – activation of the comfort operation mode	●	●
ECO function – activation of the economy operation mode	●	●
HOLIDAY function – activation of the operation mode during the holiday season	●	●
Emergency operation when communication with the room unit is lost	●	●
Heating system protection		
Room frost protection	●	●
Room overheating protection	●	●
Periodic start of thermal actuators during a period of inactivity	●	●
Periodic start of the pump and mixing valve during a period of inactivity	—	●
Data display		
LED zone operation indicator	●	●
LED indicator of circulation pump operation	—	●
LED indicator of energy source operation	—	●
LED indicator of mixing valve operation	—	●
LED indicator of BUS connection	●	●
Remote access		
Possibility of USB connection to a PC	●	●
Setup and installation		
Installation onto the installation rail	●	●
Simple installation and connection	●	●

Outlined functions



Thermal actuator control with a voltage of 24 V~ or 230 V~

The controller provides the connection of thermal actuators with a supply voltage of 230 V~ or 24 V~. The controller is pre-configured for 230 V~ power supply. In order to change the supply voltage to 24 V~, the protective cover must be removed, the switch must be moved into the 24 V~ position and the 24 V~ terminal must be connected to the ZCEPS power supply.



Simple procedure for connecting the heating zones with room units

Each room unit represents one temperature zone and can affect one or more heating zones. Establishing a connection between the controller and the room units as well as determining the effect of the room unit on the zones is carried out by a pairing process.

The pairing process is carried out in two simple steps.

- First, the controller activates the room unit pairing function. The controller waits for the first zone to be paired with the appurtenant room unit. We can also select the zone to be paired manually.
- Secondly, the pairing is executed by pressing the - and + keys on the relevant room unit. The room unit is automatically paired with the selected zone on the controller. After a successful pairing process, the controller automatically activates the pairing of the next vacant zone. The process is repeated until all room units have been paired.

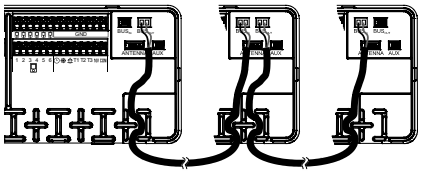


Possibility of selection of room units

The ZCE zone controller provides the connection of wired and wireless room units, or the combination of both.

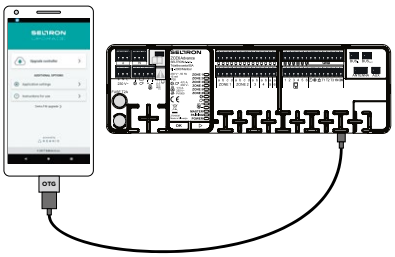
RCD40 room unit features

- Measurement and setting of the room temperature.
- Time programme configuration.
- Operation mode setting.
- PARTY, ECO, HOLIDAY and FIREPLACE user functions.
- Display of information on the controller operation.
- Wired (BUS) or wireless connection.



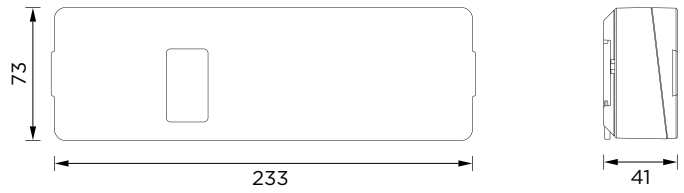
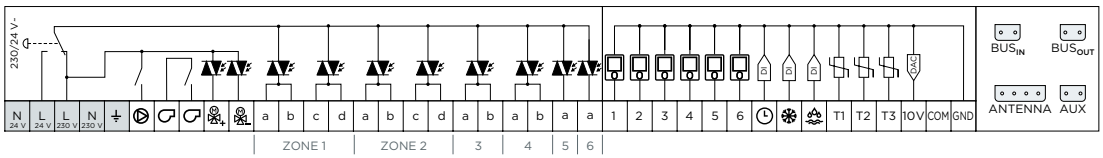
BUS connection of multiple controllers

When controlling demanding heating systems, several ZCE controllers can be interconnected into a comprehensive heating system. One controller must be set as the leading or “master” controller. Through the BUS connection, the master controller sends information on measured temperatures and the operation mode to all the slave controllers. The master controller receives requests to activate a source from slave controllers.

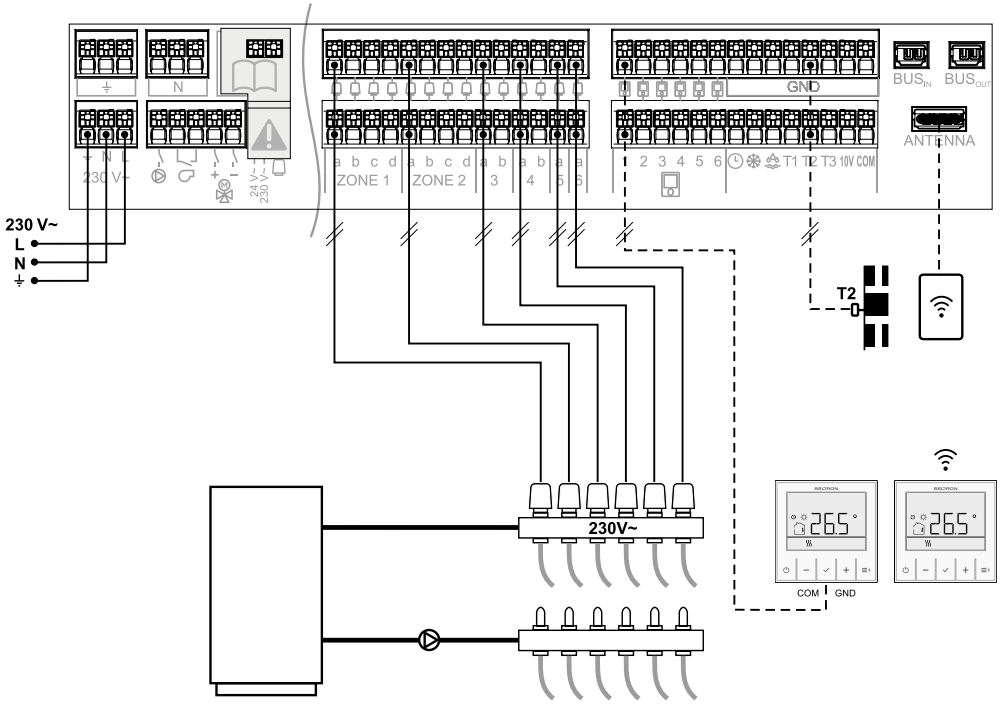


Software update

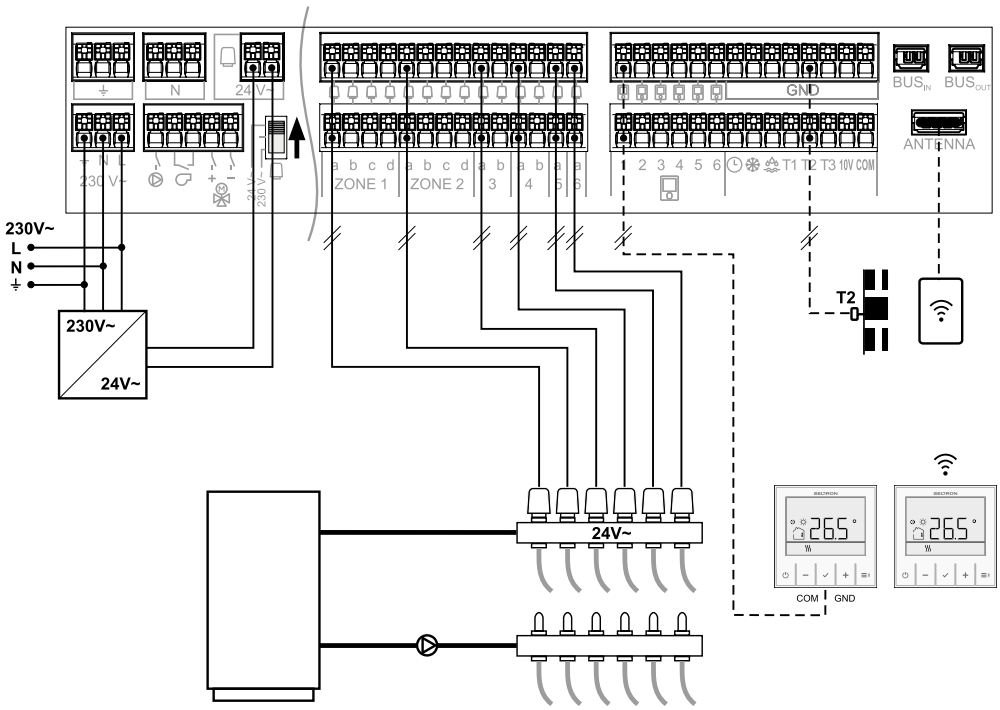
The controller and room unit software may be updated through the USB connection using a smart device.

Technical specifications	ZCE6 Basic	ZCE6 Advance
Weekly program timer	•	•
Connection voltage	230 V~, 50 Hz	
Own consumption	5 W	
Energy consumption in the standby mode	Max. 0.5 W	
No. of inputs	3 pcs temperature sensor (Pt 1000) 3 digital inputs	
No. of outputs	6 pcs solid state relay for zone control	6 pcs solid state relay for zone control 2 pcs relay output for controlling the energy source and circulation pump 2 pcs solid state relay for mixing valve control
Relay outputs	4 (1) A~, 230 V~	
Triac output	1 (1) A~, 230 V~	
Clock power supply	Battery R1025 (Li-Mn) 3 V	
Clock accuracy	+/-1 s (24 h) at 20 °C	
Degree of protection	IP20 according to EN 60529	
Safety class	I according to EN 60730-1	
Operation mode	1B according to EN 60730-1	
Type of temperature sensors	Pt1000	
Operation mode	PI controller	
Housing material	PC+ABS – thermoplastic	
Permissible ambient temperature	5÷40 °C	
Storage temperature	-20÷65 °C	
Product weight	360 g	370 g
No. of pieces in the packaging unit	6 pcs	
Dimensions		
Electrical connection		

Hydraulic connections for ZCE6 Basic and Advance

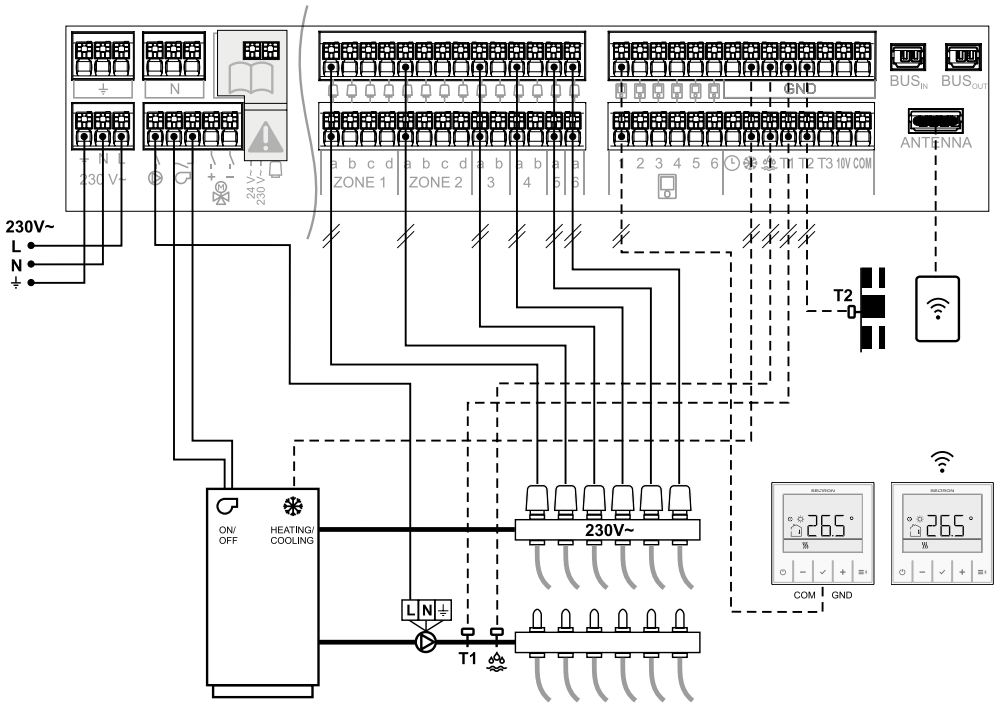


Thermal actuator 230 V~ connection.

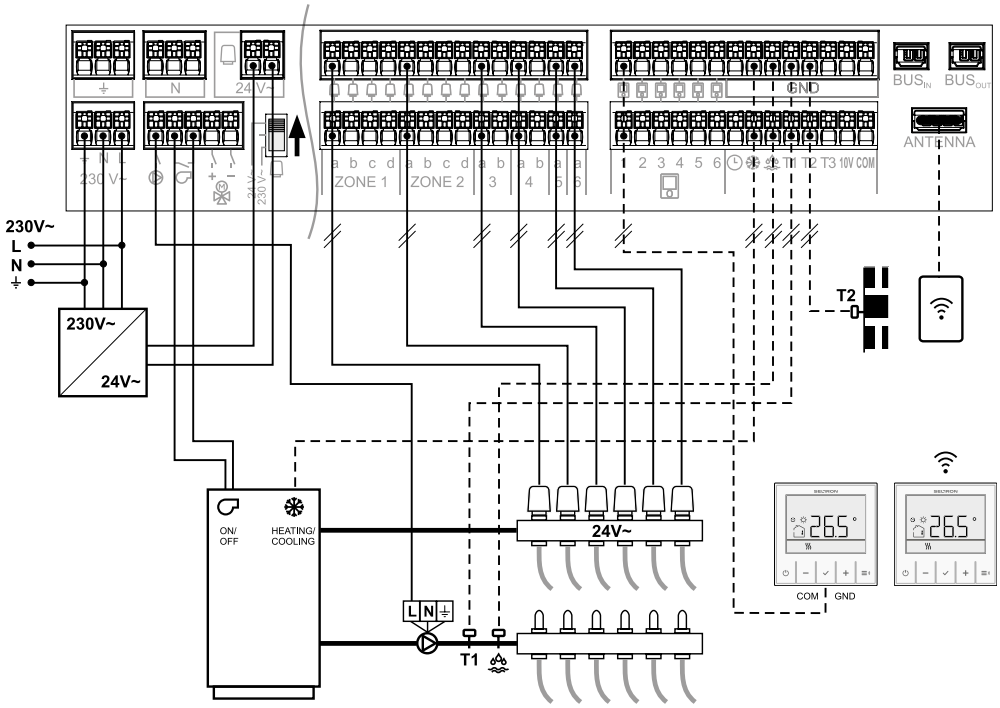


Thermal actuator 24 V~ connection.

Hydraulic connections for ZCE6 Advance

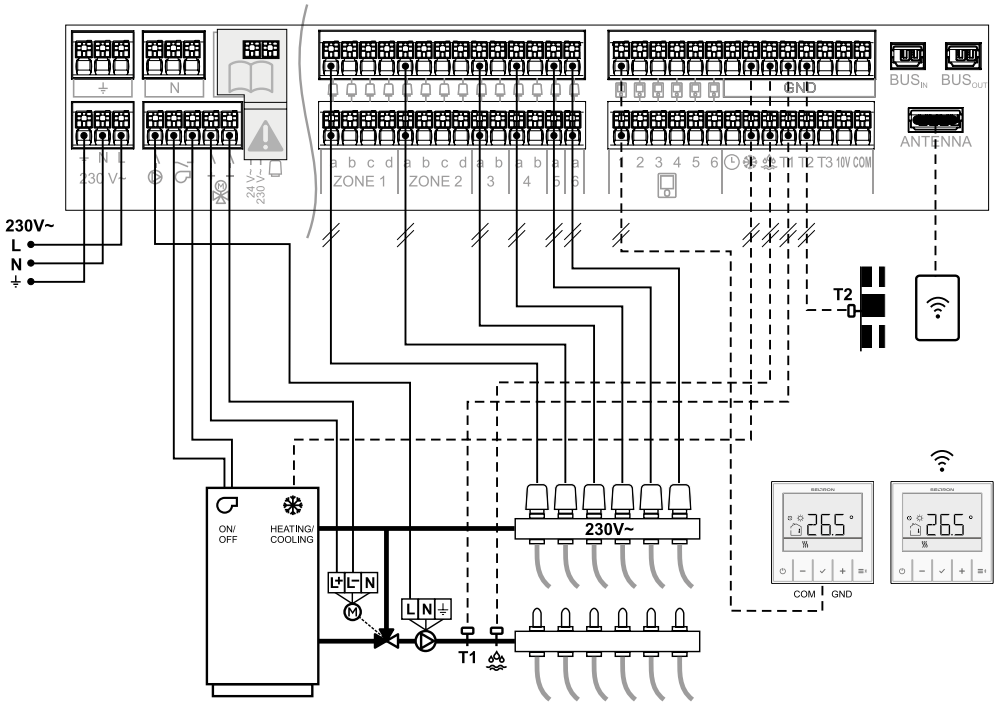


Thermal actuator 230 V~ connection – circulation pump and energy source control.

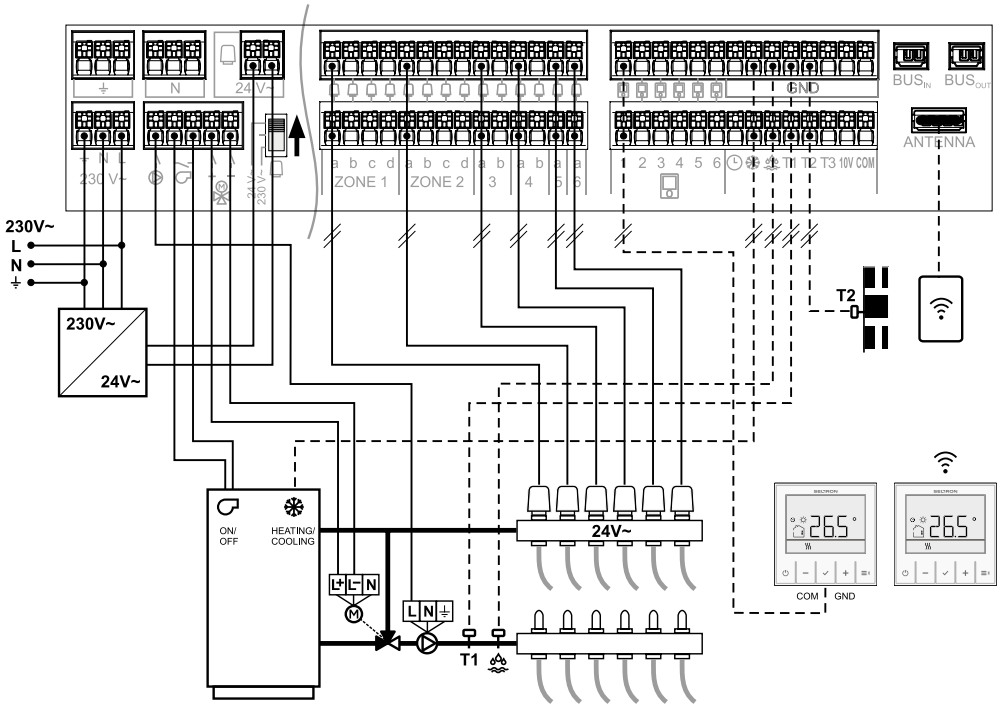


Thermal actuator 24 V~ connection – circulation pump and energy source control.

Hydraulic connections for ZCE6 Advance



Thermal actuator 230 V~ connection – circulation pump, energy source and supply temperature control.



Thermal actuator 24 V~ connection – circulation pump, energy source and supply temperature control.

Item	Order code	Description
	1ZCE6B-050	Zone controller SELTRON ZCE6B, 6 zones, basic version
	1ZCE6A-050	Zone controller SELTRON ZCE6A, 6 zones, advanced version
Accessories		
	1RBD30FZ-06	Room unit SELTRON RCD40, Drahtverbindung, Wandmontage
	1RBD30WFZ-060	Room unit SELTRON RCD40W, Funk, drahtlose Verbindung, Wandmontage
	1FODPT-NN0	Outdoor temperature sensor SELTRON AFD/Pt
	1TFPT-000	Immersion temperature sensor SELTRON TF/Pt1000, 3 m, fi 6×50 mm
	1FCD1MPZ-NN0	Dew point sensor SELTRON FCD, 1 m
	1ATD4NC1R30-NN0	Thermal drive SELTRON ATD, for linear valves (4 mm, NC, 230 V AC, M30x1.5)
	1ZCEPS-NN0	Zone control power supply SELTRON ZCEPS, 24 V~ AC, for thermal actuators 24 V~
	1ZCEAN-NN0	Wireless connection module SELTRON ZCEAN, for zone control
	1ZCEAB-NN0	Housing for antenna installation in the cabinet
	1ZCEBC-NN0	Cable for BUS connection of the SELTRON ZBEBC, for zone control
	1AVD0532M210-030	Actuator SELTRON AVD 05, 3-point, 5 Nm, 2 min, 230 V~
	1GWD3E-050	Kommunikationsmodul SELTRON GWD3E

Module for wireless connection for zone control
ZCEAN

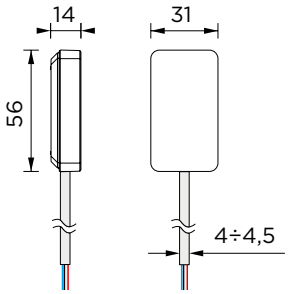
Presentation



Module for wireless connection for ZCEAN zone control belongs to the optional equipment range.

Typical application

- For wireless communication of the ZCE zone controller with a wireless room unit.

Technical characteristics	
Operating temperature	0÷50 °C
Dimensions	

Item	Code for ordering	Description
		
	1ZCEAN-NN0	Wireless connection module SELTRON ZCEAN, for zone control
	1ZCEAB-NN0	Housing for antenna installation in the cabinet

Power supply for zone control
ZCEPS

Presentation



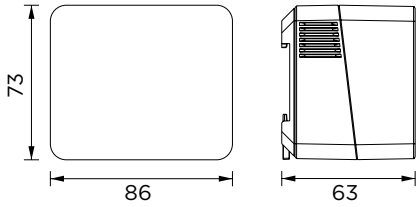
Power supply ZCEPS for zone control belongs to the optional equipment range.

Typical application

- For supplying 24 V~ thermal actuators with power.

Features

- Transformation of 230 V~ network voltage to 24 V~.
- Installation onto a DIN rail in the junction box.

Technical characteristics	
Rated voltage	230 V~/50 Hz
Output voltage	24 V~/50 Hz, 38 W
Operating temperature	0÷50 °C
Storage temperature	-20÷70 °C
Dimensions	

Item	Code for ordering	Description
	1ZCEPS-NN0	Zone control power supply SELTRON ZCEPS, 24V~ AC, for thermal actuators 24V~

BUS connection cable for zone control
ZCEBC

Presentation

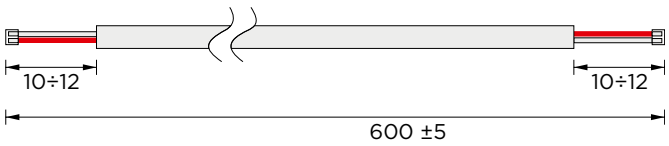


BUS connection cable for ZCEBC zone control is a part of the optional equipment range.

Typical application

- For the BUS connection of several ZCE zone heating controllers.

Technical characteristics

Operating temperature	0÷50 °C
Dimensions	

Item	Code for ordering	Description
	1ZCEBC-NN0	Cable for BUS connection of the SELTRON ZBEBC, for zone control

Compact weather compensated controller **AHD20**

Description



The AHD20 is a compact, weather compensated controller built into the actuator housing. It is used to control the mixing valve and the circulation pump to regulate the supply temperature during heating or cooling, depending on the outdoor temperature.

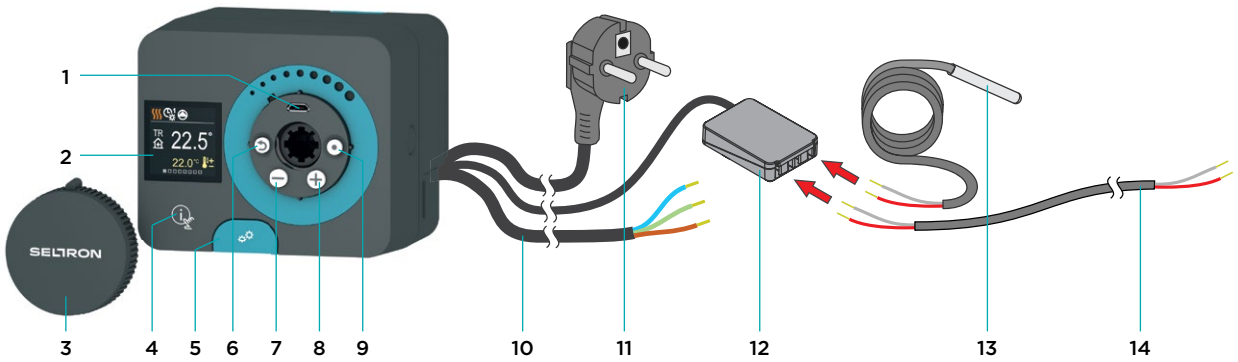
Typical application

- Weather-compensated heating and/or cooling control.
- Control of independent mixing circuit (mixing valve and circulation pump).
- Control of additional mixing circuit (mixing valve and circulation pump).

Features

- 2 pre-set hydraulic schemes.
- Possibility of connecting up to 4 sensors (supply, outdoor, room/return, power source).
- Two operating modes, weather compensated (by outdoor temperature) or thermostatic (by room temperature).
- Intuitive setting with use of keypad and color display.
- Possibility of connecting a return sensor and limiting the power of the heating circuit.
- Quick and easy "click" type installation system on mixing valve.
- Automatic screen adjustment according to the installation direction.
- Possibility of operating without a room unit (according to the heating curve).
- Possibility of BUS connection with several controllers when using a larger system.
- Error diagnostics and automatic activation of an alternative operating mode.
- Connectivity to the SeltronHome platform with remote control option.

Description



1 - USB port for software updates and connection to a personal computer.
2 - Graphic display.
3 - Manual movement button.
4 - Button . Help.
5 - Manual operation clutch.
6 - Button . Return back.
7 - Button . Move to the left, decreasing.
8 - Button . Move to the right, increasing.
9 - Button . Menu entry, confirmation of selection.
10 - Pre-wired cable for circulation pump.
11 - Pre-wired power cord with plug.
12 - Pre-wired connection box for sensors and communication.
13 - Temperature sensors.
14 - COM and BUS connections.

Applications	AHD20	AHD20W
Weather compensated heating and/or cooling control	●	●
Mixing heating circuit control (mixing valve and circulation pump)	●	●
Technical features		
Number of pre-set hydraulic schemes	2	2
Number of electronic relays	1	1
Number of temperature sensors inputs	**4**	**4**
Temperature setup option 10 to 90 °C	●	●
Additional sensor for measuring the source temperature	●	●
BUS option - interconnection of AHD controller or with other Seltron heating controllers	●	●
Wireless connectivity (connection of wireless room unit and outdoor sensor, WiFi connection to the internet)	—	●
User functions		
Room heating or cooling according to the timer programme	●	●
Heating system protection		
Frost protection	●	●
Antiblock function for mixing valve	●	●
Antiblock function for pump	●	●
Limiting the maximum supply temperature for floor heating	●	●
Data display		
Display of notifications and warnings about the heating system operation	●	●
Display of temperatures and other operating data	●	●
Detailed display of temperatures for the current day	●	●
Review of temperature data for the previous week	●	●
Signalling of the mixing valve rotating direction	●	●
Control and signalling of the circulation pump operation	●	●
Remote access		
Possibility of USB connection to a personal computer	●	●
Possibility of connectivity to the SeltronHome platform, which allows remote control via a smartphone or tablet	●	●
Setting and installation		
Wizard for an easy and quick device start-up	●	●
14-language user interface: EN, DE, FR, NL, PL, ES, SL, IT, CZ, SK, HR, RU, HU, UA	●	●
Connection box for sensors	●	●
Setting of the operation by selecting the hydraulic scheme	●	●
Setting of the rotation direction of the mixing valve	●	●
Logging and display of changes made to the setup	●	●
Allows recalling basic settings in case of loss or unwanted changes	●	●
Suitable for installation on different types of mixing valves	●	●
"Click" type installation system	●	●
Connection box for sensors is prewired to the controller	●	●
Power cord equipped with plug	●	●

Featured functions



Clutch for manual operation

The manual mode clutch of the AHD compact controller is activated by pressing the button. When the clutch is activated, the mixing valve control and, where appropriate, also the circulation pump is switched off to save energy. Manual operation mode is signalled on the display.



Quick installation

For dismounting, release of safety knob on the flange is needed and controller can be removed form the valve.

For dismounting, press and hold the release knob on the flange and remove the controller from the valve.

During operation, controller can not release itself from the valve.

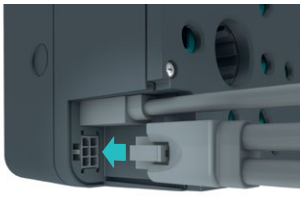
Mounting accessories are available for most mixing valves on the market.



User friendly interface

The user menu consists of a colour display and a keypad. The keypad was deliberately placed under the button for manual movement, what prevents unwanted changes of the settings to the controller.

For clear and user-friendly data display, the controller has a built-in colour graphic display with a 240 x 240-pixel resolution, with adjustable brightness. The automatic screen orientation ensures that the data is readable regardless of the installation position.

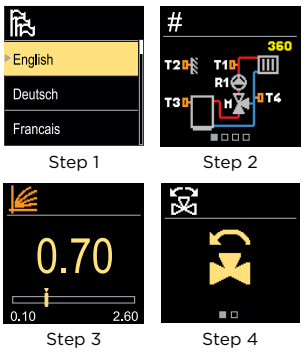


Plug-in connectors

The AHD compact controller has a built-in socket for the connector of the power cable. This allows an easy disconnection in the case of maintenance work, without the need for any tools.

Sensors and other connections are connected to an external connection box, which allows the connection of:

- T1-T4 sensors.
- Bus connection to another controller.
- Room unit.



Start-up wizard

The controller is equipped with a built-in wizard, which allows the initial setting of the controller. It only takes four steps and includes:

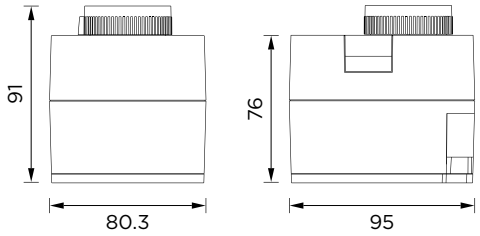
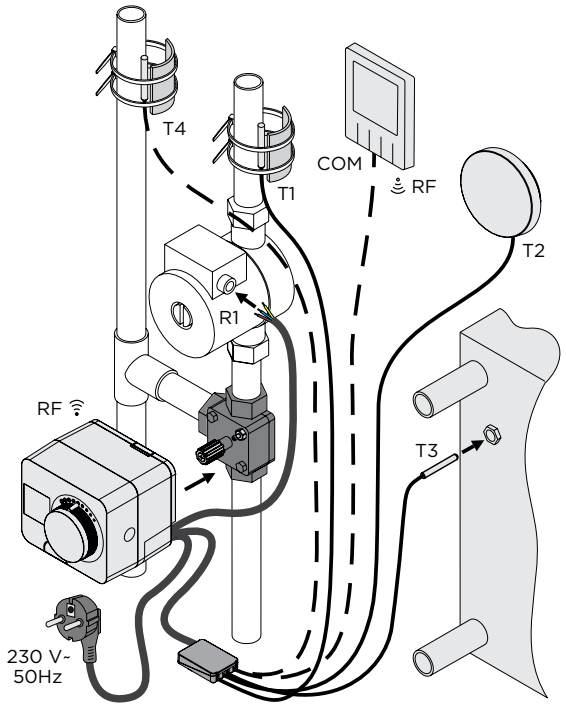
Step 1: Language selection.

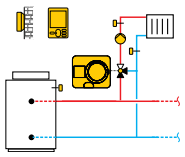
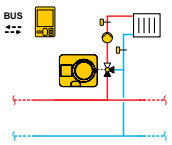
Step 2: Hydraulic scheme selection.

Step 3: Setup of heating curve steepness.

Step 4: Selection of opening direction of mixing valve.

After completing this procedure, the controller is set up and ready for basic operation.

Technical data	AHD20	AHD20W
TFT display	•	
Keypad	•	
Own consumption	Maximum 3,5 W	
Standby power consumption	Maximum 0,5 W	
Torque	5 Nm	
Rotation angle	90 < °	
Wireless connectivity - wireless connection with room unit and outdoor sensor	–	•
Wireless connectivity - WiFi connection to internet	–	•
Rotation speed	2 min 90 < °	
Mixing valve control	3-point PID	
Circulation pump control	2-point (ON/OFF)	
Relay output	electronic relay, 1 (1) A ~, 250 V~	
Supply voltage	230 V ~, 50 Hz	
Maximum own consumption	5 W	
Power supply of built-in clock	Battery CR1025 (Li-Mn) 3 V	
Accuracy of built-in clock	+/-1 s (24 h) at 20 °C	
Degree of protection	IP42 according to EN 60529	
Safety class	I according to EN 60730-1	
Type of temperature sensors	Pt1000	
Housing material	PC - dark grey	
Operating temperature	0 to 50 °C	
Storage temperature	-20 to 65 °C	
Product weight	800÷1.000 g	
Number of pieces in a package unit	12 pieces	
Dimensions		
Electrical connection Key: ——— mandatory sensors (T1, T2, T3) — — optional sensors (T4, COM)		

Hydraulic schemes for AHD20	
360  Heating circuit.	360b  Additional heating circuit.

Product	Order code	Description
	1AHD2021-050	Compact weather-compensated controller SELTRON AHD20, 2x TF/Pt, 1xAFD/Pt
	1AHD20W21-050	Compact weather-compensated controller SELTRON AHD20W, wireless, 2x TF/Pt, 1xAFD/Pt
Accessories		
	1AVDMSA+NN0	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip (5 Nm)
	1AVDMSB+NN0	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip(10 Nm+)
	1AVDMSC+NN0	Afriso ARV series, Danfoss HFE series, Esbe 3F & 4F & T series
	1AVDMSD+NN0	Meibes new valve, Brv
	1AVDMSE+NN0	Landis & Gyr, Siemens - Type VBI, Type VBF
	1AVDMSF+NN0	Meibes old valve, Wita
	1AVDMSG+NN0	Esbe VRG series
	1AVDMSH+NN0	Brv 1060 & 1050 series, Herz MV3P & MV4P series, Womix MIX M
	1AVDMSI+NN0	Honeywell V544.., V543..
	1AVDMSJ+NN0	Paw K32, K33, K34
	1AVDMSK+NN0	Danfoss HRB, HRE
	1AVDMSL+NN0	Vexve AMV Series, ABV Series
	1AVDMST+NN0	ISO 5211 ball valve, F03 flange, L/R axis 9 mm
	1AVDMSU+NN0	ISO 5211 ball valve, F04 flange, L/R axis 9 mm
	1AVDMSV+NN0	ISO 5211 ball valve, F04 flange, L/R axis 11 mm
	1AVDMSW+NN0	ISO 5211 ball valve, F05 flange, L/R axis 11 mm
	1FODPT-NN0	Outdoor temperature sensor SELTRON AFD/Pt
	1RBD30F-060	Room unit SELTRON RCD20, wired connection, surfaces-mounting
	1RBD30WF-060	Room unit SELTRON RCD20W, wireless connection, surfaces-mounting
	1GWD3E-050	Communication module SELTRON GWD3E

Weather compensated controllers
WDC10B | WDC10 | WDC20

Presentation



WDC weather compensated controllers are intended for the control of room heating and domestic hot water heating in single-family houses.
They provide the control of one or two heating circuits, switchover between heat sources, and the protection of the return line during the storage tank loading.
They are used for heating systems with one or two boilers, a heat pump, a storage tank, and a solar system.

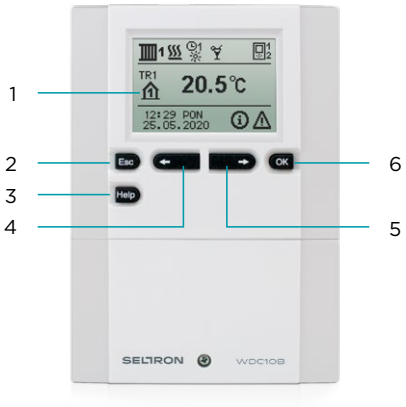
Typical application

- Radiator room heating system control.
- Floor heating or cooling system control.
- Convector heating or cooling system control.
- Wall or ceiling heating or cooling system control.
- Domestic hot water heating.

Features

- Up to 52 preset hydraulic schemes.
- Room heating or cooling according to the time programme.
- Domestic hot water heating according to the time programme.
- Solar system domestic hot water heating.
- Control of heating systems with a storage tank.
- The possibility of connecting 2 room units.
- BOOST function for intense room heating.
- Integrated solar system protection features.
- 13-language user interface.
- Wizard for an easy and quick device start-up.
- Notifications on the activated protection functions and warnings about system failures.
- Possibility to simulate sensors and analyse the system operation.
- Remote control with the help of the SeltronHome system.

Description of settings buttons



1 – Graphic display.
2 – Esc Move backwards key.
3 – Help Help key.
4 – ← Move left or reduction key.
5 – → Move right or increase key.
6 – OK Menu entry or selection confirmation key.

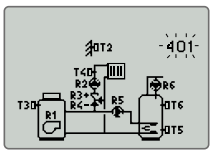
Typical application	WDC10B	WDC10	WDC20
Radiator room heating system control	●	●	●
Floor heating or cooling system control	●	●	●
Convector heating or cooling system control	●	●	●
Wall or ceiling heating or cooling system control	●	●	●
Domestic hot water heating	●	●	●
Technical characteristics			
No. of preset hydraulic schemes	7	17	52
No. of room units	2	2	2
No. of mechanical relays	6	6	7
No. of solid state relays	—	1	1
No. of analogue outputs (0÷10 V or PWM) for the control of the circulation pump or an energy source	2	2	2
No. of temperature sensor inputs	7	7	7
BUS option – the interconnection of WDC controllers and connection with other Seltron controllers	●	●	●
System control			
Control of a heating system with radiators	●	●	●
Floor heating or cooling system control	●	●	●
Convector heating or cooling system control	●	●	●
Wall or ceiling heating or cooling system control	●	●	●
Domestic hot water heating system control	●	●	●
Heating circuits control			
Direct circuit	●	●	●
Mixing circuit	●	●	●
Direct and mixing circuit	—	●	●
Two mixing circuits	—	—	●
Domestic hot water heating	●	●	●
Switchover between direct heating circuit and domestic hot water heating	●	●	●
Domestic hot water circulation	●	●	●
Automatic switchover between heat sources	—	—	●
Control of the supply line constant temperature	●	●	●
Single-stage storage tank loading	—	—	●
Heat source control			
Solid fuel boiler	●	●	●
Solid fuel boiler with a pellet burner	—	—	●
Liquid fuel boiler	●	●	●
Liquid fuel boiler with a two-stage burner	●	●	●
Combined boiler	—	—	●
Gas flow boiler	—	—	●
Heat pump	—	—	●
Storage tank	●	●	●
Auxiliary heating with electricity	●	●	●
Solar collectors	—	●	●
Domestic hot water heating			
With a primary heating source	●	●	●
With a storage tank	●	●	●
Using a solar system	—	●	●
User functions			
Room heating or cooling according to the time programme	●	●	●
Automatic winter/summer mode switchover	●	●	●
PARTY function – activation of the comfort operation mode	●	●	●
ECO function – activation of the economy operation mode	●	●	●
HOLIDAY function – activation of the operation mode during the holiday season	●	●	●
Domestic hot water heating according to the time programme	●	●	●
One-time domestic hot water heating	●	●	●
BOOST function for intense room heating	●	●	●
Function for screed drying	●	●	●

Heating system protection	WDC10B	WDC10	WDC20
Anti-legionella protection (for a controlled energy source)	●	●	●
Storage tank overheating protection	●	●	●
Boiler overheating protection	●	●	●
Collector frost protection	—	●	●
Forced pump start at the highest collector temperature	—	●	●
Switching off of the collectors when the safety temperature has been exceeded	—	●	●
Solar system protection when collectors are overheating	—	●	●
Storage tank recooling to the desired temperature	—	●	●
Periodic starting up of pumps and mixing valves during a period of inactivity	●	●	●
A comprehensive overview of the heating system operation			
Graphic display of temperatures according to days of the last week	●	●	●
Detailed display of temperatures for the current day	●	●	●
Notifications on the activated protection functions and warnings about system failures	●	●	●
Possibility to simulate sensors and analyse the system operation	●	●	●
Remote access			
With a separate dedicated cable, the controller can be connected to a computer	●	●	●
Connectivity to the SeltronHome platform providing remote control using a smartphone or tablet	●	●	●
Setup and installation			
Wizard for an easy and quick device start-up	●	●	●
13-language user interface: EN, DE, FR, NL, PL, ES, SL, IT, CS, LT, GR, HU, HR	●	●	●
Setting up the operation by selecting the hydraulic scheme	●	●	●
“Help” button for quick help with the setup	●	●	●
Graphically adjustable time programmes	●	●	●
Option to simulate the system operation	●	●	●
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	●	●	●
Option for programming free outputs	●	●	●
Possibility of wall or DIN rail installation	●	●	●
Simple installation and connection	●	●	●

Outlined functions



Step 1



Step 2



Steps 3 and 4

Start-up wizard

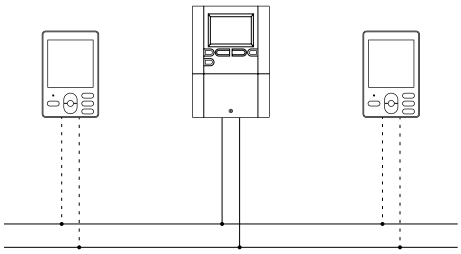
The WDC controller is equipped with a start-up wizard, which takes you through the initial setup of the controller in 3 or 4 steps.

Step 1: language selection.

Step 2: hydraulic scheme selection.

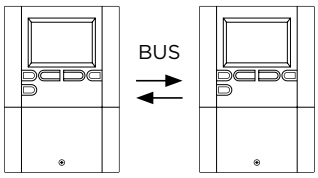
Step 3: setting the heating curve for the first heating circuit.

Step 4: setting the heating curve for the second heating circuit.



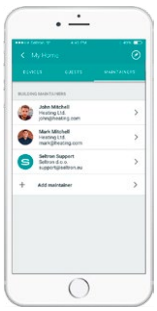
Possibility to connect a Seltron room unit

The WDC controller provides the connection of RCD room units. The room unit provides measurements of room temperature, selection of operation mode and setting of daytime and nighttime temperatures. Up to two room units may be connected to one WCD controller.



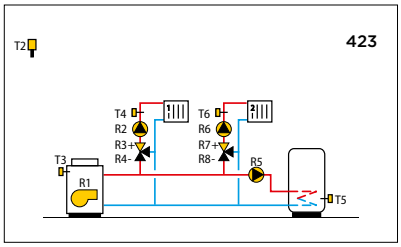
BUS connection of multiple controllers

A random number of WDC controllers can be interconnected with the BUS connection. The master controller controls heat sources and heating circuits, meanwhile the slave controllers only control heating circuits. The outdoor sensor and the boiler temperature sensor are connected to the master controller.



Remote control with the help of SeltronHome system

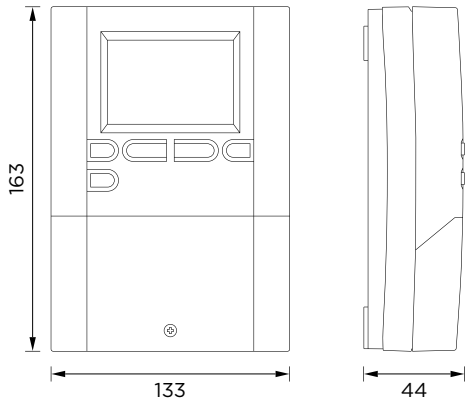
The WDC controllers may be connected to the SeltronHome platform, which provides the heating remote control using a smartphone or tablet.
Remote control is enabled through the CLAUSIUS application for the end user and the KELVIN app for service technicians.
The CLAUSIUS application provides the adaptation of the heating to our lifestyle, which leads to greater comfort and reduced heating expenses.



Typical hydraulic scheme

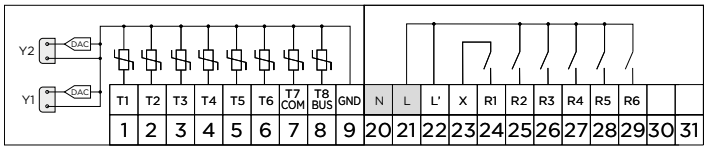
Oil boiler, 2 mixing circuits, domestic hot water storage tank.

Example: hydraulic scheme 423.

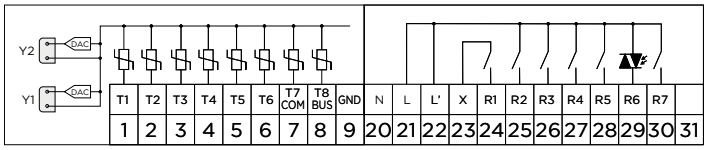
Technical specifications	WDC10B	WDC10	WDC20
Backlit graphic display	•	•	•
Operating hours meter	•	•	•
Weekly program timer	•	•	•
Connection voltage	230 V~, 50 Hz		
Own consumption	2.5 W		
Energy consumption in the standby mode	Max. 0.5 W		
No. of inputs	7 pcs temperature sensor (Pt 1000)		
No. of outputs	6 pcs mechanical 2 pcs PWM or analogue 0÷10 V (Y2)	6 pcs mechanical 1 pc electronic 2 pcs PWM or analogue 0÷10 V (Y1, Y2)	7 pcs mechanical 1 pc electronic 2 pcs PWM or analogue 0÷10 V (Y1, Y2)
Relay outputs	4 (1) A~, 230 V~		
Triac output	1 (1) A~, 230 V~		
Clock power supply	Battery CR2032 (Li-Mn) 3 V		
Clock accuracy	+/-1 s (24 h) at 20 °C		
Degree of protection	IP20 according to EN 60529		
Safety class	I according to EN 60730-1		
Operation mode	1B according to EN 60730-1		
Type of temperature sensors	Pt1000 or KTY10		
Operation mode	3-point PID		
Housing material	ASA – thermoplastic		
Permissible ambient temperature	5÷40 °C		
Storage temperature	-20÷65 °C		
Product weight	410 g	410 g	450 g
No. of pieces in the packaging unit	6 pcs		
Dimensions			

Electrical connection

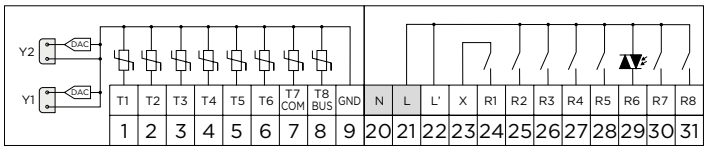
WDC10B



WDC10

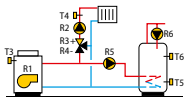


WDC20



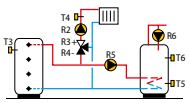
Hydraulic connections for WDC10B, WDC10, WDC20

401



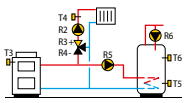
Oil boiler, mixing circuit, domestic hot water storage tank.

401b



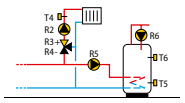
Storage tank, mixing circuit, domestic hot water storage tank.

401c



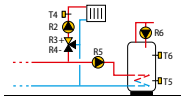
Solid fuel boiler, mixing circuit, domestic hot water storage tank.

401d



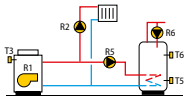
No-boiler system – mixing circuit, domestic hot water storage tank.

401e



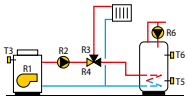
Extension scheme – mixing circuit, domestic hot water storage tank.

402



Oil boiler, direct circuit, domestic hot water storage tank.

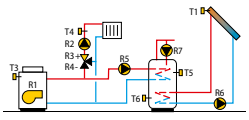
403



Oil boiler, direct circuit, domestic hot water storage tank.

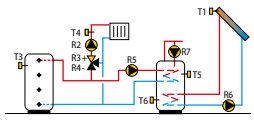
Hydraulic connections for WDC10, WDC20

404



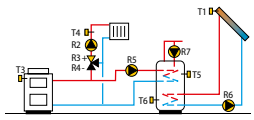
Oil boiler, mixing circuit, domestic hot water storage tank, solar collectors.

404b



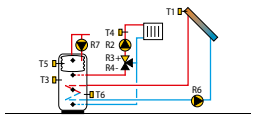
Storage tank, mixing circuit, domestic hot water storage tank, solar collectors.

404c



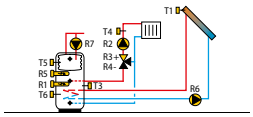
Solid fuel boiler, mixing circuit, domestic hot water storage tank, solar collectors.

404d



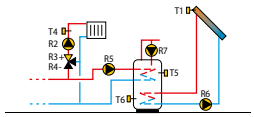
Storage tank with integrated domestic hot water storage tank, mixing circuit, solar collectors.

404e



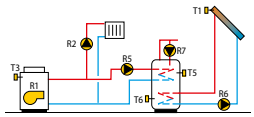
Storage tank with integrated domestic hot water storage tank, mixing circuit, auxiliary heating with electricity, solar collectors.

404f



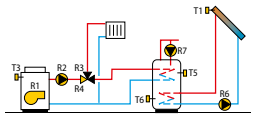
Extension scheme – mixing circuit, domestic hot water storage tank, solar collectors.

405



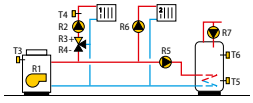
Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.

406



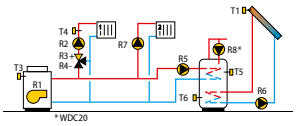
Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.

407



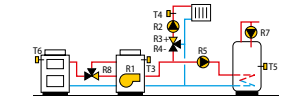
Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank.

407b



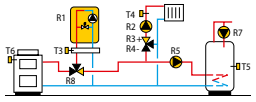
Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank, solar collectors.

Hydraulic connections for WDC20



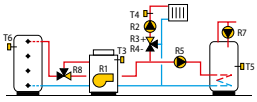
408

Solid fuel boiler, oil boiler, mixing circuit, domestic hot water storage tank.



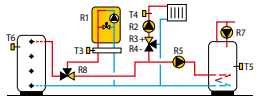
408b

Solid fuel boiler, gas boiler, mixing circuit, domestic hot water storage tank.



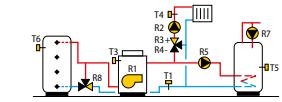
409

Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.



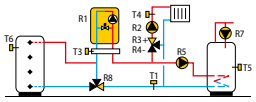
409b

Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.



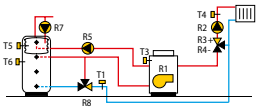
410

Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.



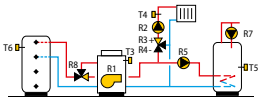
410b

Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.



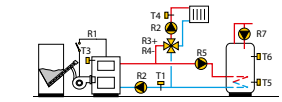
410c

Storage tank with integrated domestic hot water storage tank, oil boiler, mixing circuit.



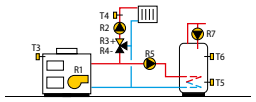
411

Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.



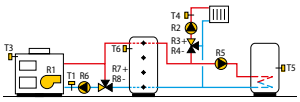
412

Pellet boiler, mixing circuit, domestic hot water storage tank.



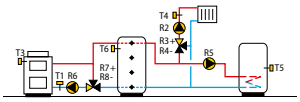
413

Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.



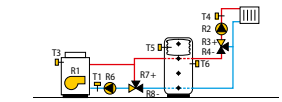
414

Combined boiler (solid fuel/oil), storage tank, mixing circuit, domestic hot water storage tank.



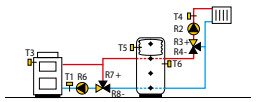
414b

Solid fuel boiler, storage tank, mixing circuit, domestic hot water storage tank.



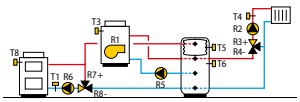
415

Combined boiler (solid fuel/oil), storage tank with integrated domestic hot water storage tank, mixing circuit.



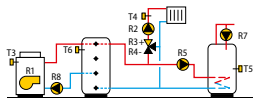
415b

Solid fuel boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



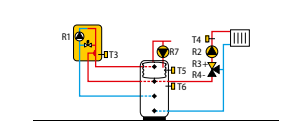
415c

Solid fuel boiler, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



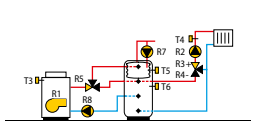
416

Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.



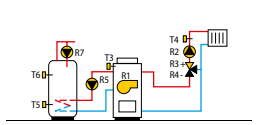
416b

Gas boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



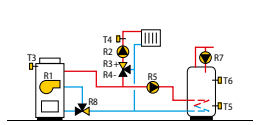
416c

Oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



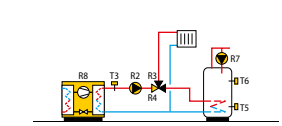
417

Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.



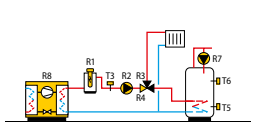
418

Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.



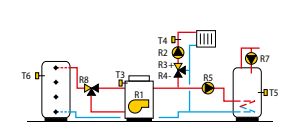
419

Heat pump, direct circuit, domestic hot water storage tank.



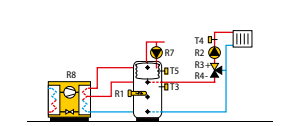
420

Heat pump, auxiliary heating with electricity, direct circuit, domestic hot water storage tank.



421

Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.

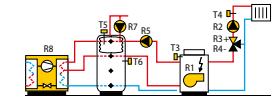


422

Heat pump, storage tank with integrated domestic hot water storage tank, auxiliary heating with electricity, mixing circuit.

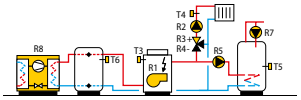
Hydraulic connections for WDC20

422b



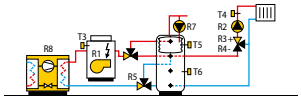
Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.

422c



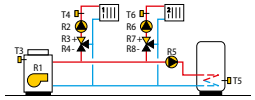
Heat pump, oil boiler, storage tank, mixing circuit, domestic hot water storage tank.

422d



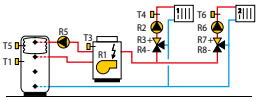
Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.

423



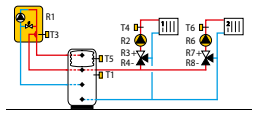
Oil boiler, 2 mixing circuits, domestic hot water storage tank.

423b



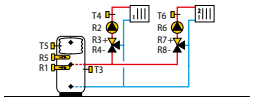
Storage tank with integrated domestic hot water storage tank, oil boiler,
2 mixing circuits.

423c



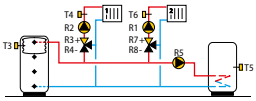
Gas boiler, storage tank with integrated domestic hot water storage tank,
2 mixing circuits.

423d



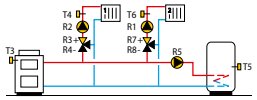
Storage tank with integrated domestic hot water storage tank, heating with electricity, 2 mixing circuits.

423e



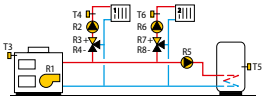
Storage tank, 2 mixing circuits, domestic hot water storage tank.

423f



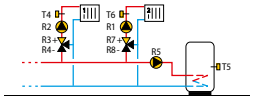
Solid fuel boiler, 2 mixing circuits, domestic hot water storage tank.

423g



Combined boiler (solid fuel/oil), 2 mixing circuits, domestic hot water storage tank.

423h



Extension scheme, domestic hot water storage tank, 2 mixing circuits.

Item	Order code	Description
	2WDC10B00000-010	Weather compensated controller SELTRON WDC10B
	2WDC1000000-010	Weather compensated controller SELTRON WDC10
	2WDC2000000-010	Weather compensated controller SELTRON WDC20
	2WDC10B21100-010	Weather compensated controller SELTRON WDC10B with sensors (2×TF/Pt, 1×VF/Pt, 1×AF/Pt)
	2WDC1041100-010	Weather compensated controller SELTRON WDC10 with sensors (4×TF/Pt, 1×VF/Pt, 1×AF/Pt)
	2WDC2041100-010	Weather compensated controller SELTRON WDC20 with sensors (4×TF/Pt, 1×VF/Pt, 1×AF/Pt)
Accessories		
	1TFPT-000	Immersion temperature sensor SELTRON TF/Pt
	1VFPT-000	Surface temperature sensor SELTRON VF/Pt
	1FODPT-NN0	Outdoor temperature sensor SELTRON AFD/Pt
	1AVD0532M210-030	Actuator SELTRON AVD 05, 3-point, 5 Nm, 2 min, 230 V~
	1AVD0521M210-030	Actuator SELTRON AVD 05R, 2-point, 5 Nm, 1 min, 230 V~
	1RBD30F-060	Room unit SELTRON RCD20, wired connection, wall mounting
	1GWD3E-050	Communication module SELTRON GWD3E

Weather compensated controllers
WXE

Presentation



WXE are advanced heating controllers, installed in standard-dimension housings of 144×96 mm. They have been developed for the control of room heating or cooling as well as domestic hot water heating in single-family homes. They provide the of up to 3 heating circuits, switchover between heat sources, and the protection of the return line during the storage tank loading. They are used for heating systems with one or two boilers, a heat pump, a storage tank, and a solar system.

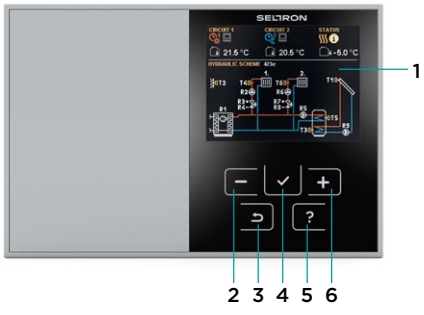
Typical application

- Radiator heating system control.
- Floor heating or cooling system control.
- Convector heating or cooling system control.
- Wall or ceiling heating or cooling system control.
- Domestic hot water heating.

Features

- Up to 80 preset hydraulic schemes.
- They may be used for the control of new systems or to replace the installed controllers.
- Room heating or cooling according to the time programme.
- Domestic hot water heating according to the time programme.
- Solar system domestic hot water heating.
- Control of heating systems with a storage tank.
- The possibility of connecting 3 room units.
- BOOST function for intense room heating.
- Integrated solar system protection features.
- 13-language user interface.
- Wizard for an easy and quick device start-up.
- Operational diagnostics featuring error and excessive temperature warnings.
- Remote control with the help of the SeltronHome system.

Description of settings buttons



1 – Graphic display.
2 – Move left or reduction.
3 – Move backwards key.
4 – Menu entry or selection confirmation.
5 – Help.
6 – Move right or increase.

Typical application	WXE
Radiator room heating system control	●
Floor heating or cooling system control	●
Convector heating or cooling system control	●
Wall or ceiling heating or cooling system control	●
Domestic hot water heating	●
Technical characteristics	
No. of preset hydraulic schemes	up to 8
No. of room units	up to 3
No. of mechanical relays	up to 10
No. of solid state relays	up to 4
No. of temperature sensor inputs	up to 18
No. of analogue outputs (0÷10 V or PWM) for the control of the circulation pump or an energy source	up to 5
BUS option – the interconnection of WXE controllers and connection with other Seltron controllers	●
Wireless room unit & sensors	●
System control	
Control of a heating system with radiators	●
Floor heating or cooling system control	●
Convector heating or cooling system control	●
Wall or ceiling heating or cooling system control	●
Domestic hot water heating system control	●
Heating circuits control	
Direct circuit	up to 1
Mixing circuit	up to 3
Domestic hot water heating	●
Switchover between direct heating circuit and domestic hot water heating	●
Domestic hot water circulation	●
Automatic switchover between heat sources	●
Control of the supply line constant temperature	●
Single-stage storage tank loading	●
Heat source control	
Solid fuel boiler	●
Solid fuel boiler with a pellet burner	●
Liquid fuel boiler	●
Liquid fuel boiler with a two-stage burner	●
Combined boiler	●
Gas flow boiler	●
Heat pump	●
Storage tank	●
Auxiliary heating with electricity	●
Solar collectors	●
Domestic hot water heating	
With a primary heating source	●
With a storage tank	●
Using a solar system	●
User functions	
Room heating or cooling according to the time programme	●
Automatic winter/summer mode switchover	●
PARTY function – activation of the comfort operation mode	●
ECO function – activation of the economy operation mode	●
HOLIDAY function – activation of the operation mode during the holiday season	●
Domestic hot water heating according to the time programme	●
One-time domestic hot water heating	●
BOOST function for intense room heating	●
Function for screed drying	●

Heating system protection	WXE
Anti-legionella protection (for a controlled energy source)	●
Storage tank overheating protection	●
Boiler overheating protection	●
Collector frost protection	●
Forced pump start at the highest collector temperature	●
Switching off of the collectors when the safety temperature has been exceeded	●
Solar system protection when collectors are overheating	●
Storage tank recooling to the desired temperature	●
Periodic starting up of pumps and mixing valves during a period of inactivity	●
A comprehensive overview of the heating system operation	
Graphic display of temperatures according to days of the last week	●
Detailed display of temperatures for the current day	●
Notifications on the activated protection functions and warnings about system failures	●
Possibility to simulate sensors and analyse the system operation	●
Remote access	
Possibility of USB connection to a PC	●
Connectivity to the SeltronHome platform providing remote control using a smartphone or tablet	●
Setup and installation	
Wizard for an easy and quick device start-up	●
13-language user interface: EN, DE, FR, NL, PL, ES, SL, IT, CS, LT, GR, HU, HR	●
Setting up the operation by selecting the hydraulic scheme	●
“Help” button for quick help with the setup	●
Graphically adjustable time programmes	●
Option to simulate the system operation	●
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	●
Option for programming free outputs	●
Possibility of installation onto the wall or into a cutout (opening)	●
Simple installation and connection	●

Outlined features





High level of OEM custumization

WXE controllers offer high level of OEM custumization. Available are in different design and hardware performance levels. Number and range of hydraulic systems can be selected from a standars list. Aswell, OEM specific schemes can be developed.

WXE controller is scalable to fit all types and complexity of heating systems – from simple solar systems to complex heating sytsems.



WXE controller installation

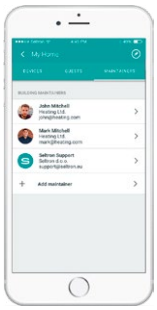
The WXE controller is used for the control of modern heating systems or as a replacement controller in older heating systems.
It can be installed into a standard cutout on the boiler or on the wall.



Example of installation into a cutout or aperture on the boiler

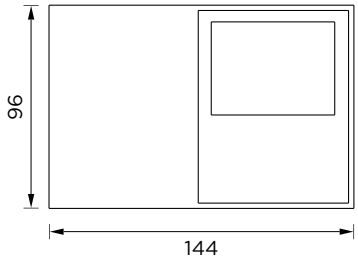


Example of installation onto the wall

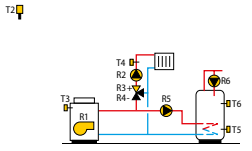


Remote control with the help of SeltronHome system

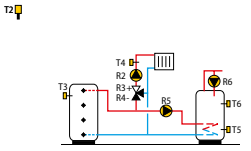
The WXE controllers may be connected to the SeltronHome platform, which provides the heating remote control using a smartphone or tablet. Remote control is enabled through the CLAUSIUS application for the end user and the KELVIN app for service technicians.
The CLAUSIUS application provides the setting of the desired temperature, heating operation mode, and an overview and the possibility to change time programmes via a smartphone or a computer.

Technical specifications	WXE
Backlit graphic display	●
Operating hours meter	●
Weekly program timer	●
Connection voltage	230 V~, 50 Hz
Own consumption	5 W
Energy consumption in the standby mode	Max. 0.5 W
No. of inputs	Up to 18 pcs temperature sensor (Pt 1000), 5 PWM inputs
No. of outputs	10 pcs mechanical 5 pcs analogue 0÷10 V
Relay outputs	4 (1) A~, 230 V~
Triac output	1 (1) A~, 230 V~
Clock power supply	Battery CR1025 (Li-Mn) 3 V
Clock accuracy	+/-1 s (24 h) at 20 °C
Degree of protection	IP20 according to EN 60529
Safety class	I according to EN 60730-1
Operation mode	1B according to EN 60730-1
Type of temperature sensors	Pt1000 or KTY10
Operation mode	3-point PID
Housing material	ASA + PC – thermoplastic
Permissible ambient temperature	5÷40 °C
Storage temperature	-20÷65 °C
Product weight	570 g
No. of pieces in the packaging unit	6 pcs
Dimensions	

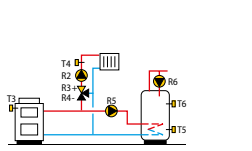
Hydraulic connections for WXE



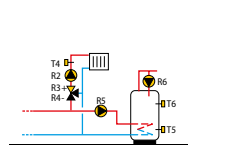
Oil boiler, mixing circuit, domestic hot water storage tank.



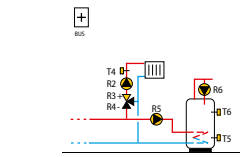
Storage tank, mixing circuit, domestic hot water storage tank.



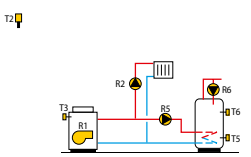
Solid fuel boiler, mixing circuit, domestic hot water storage tank.



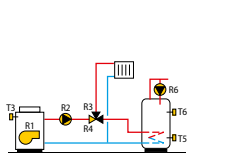
No-boiler system – mixing circuit, domestic hot water storage tank.



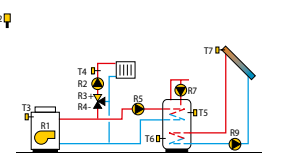
Extension scheme – mixing circuit, domestic hot water storage tank.



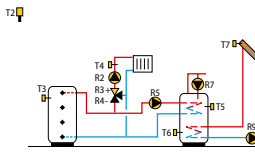
Oil boiler, direct circuit, domestic hot water storage tank.



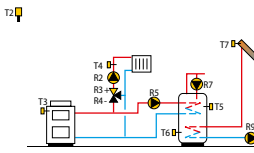
Oil boiler, direct circuit, domestic hot water storage tank.



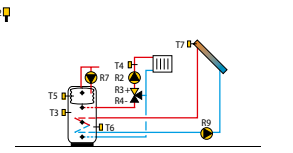
Oil boiler, mixing circuit, domestic hot water storage tank, solar collectors.



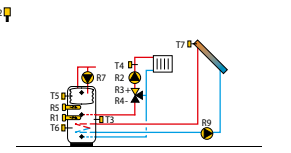
Storage tank, mixing circuit, domestic hot water storage tank, solar collectors.



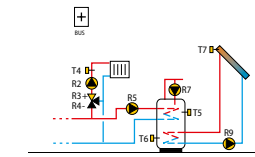
Solid fuel boiler, mixing circuit, domestic hot water storage tank, solar collectors.



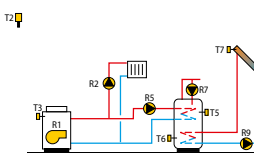
Storage tank with integrated domestic hot water storage tank, mixing circuit, solar collectors.



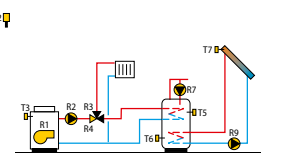
Storage tank with integrated domestic hot water storage tank, mixing circuit, auxiliary heating with electricity, solar collectors.



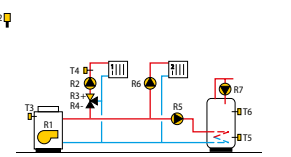
Extension scheme – mixing circuit, domestic hot water storage tank, solar collectors.



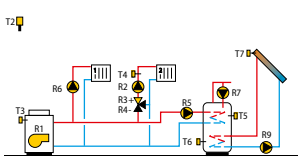
Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.



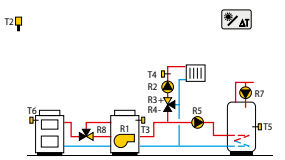
Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.



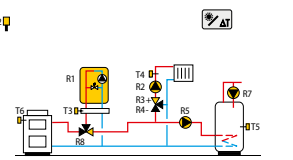
Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank.



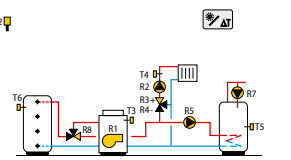
Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank, solar collectors.



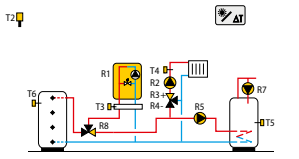
Solid fuel boiler, oil boiler, mixing circuit, domestic hot water storage tank.



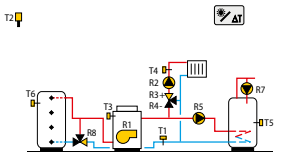
Solid fuel boiler, gas boiler, mixing circuit, domestic hot water storage tank.



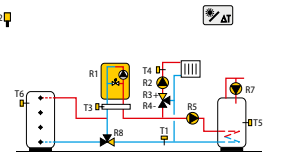
Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.



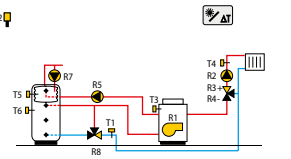
Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.



Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.

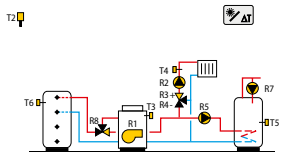


Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.

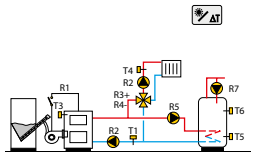


Storage tank with integrated domestic hot water storage tank, oil boiler, mixing circuit.

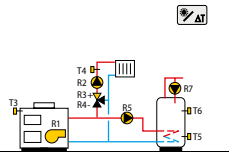
Hydraulic connections for WXE



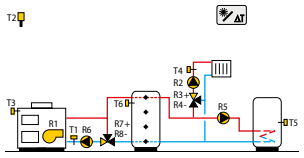
Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.



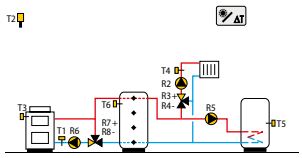
Pellet boiler, mixing circuit, domestic hot water storage tank.



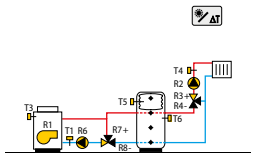
Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.



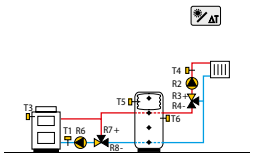
Combined boiler (solid fuel/oil), storage tank, mixing circuit, domestic hot water storage tank.



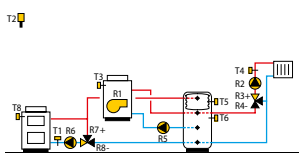
Solid fuel boiler, storage tank, mixing circuit, domestic hot water storage tank.



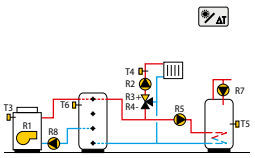
Combined boiler (solid fuel/oil), storage tank with integrated domestic hot water storage tank, mixing circuit.



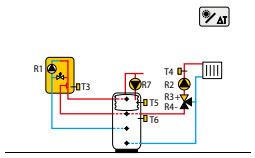
Solid fuel boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



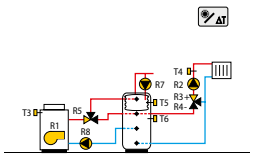
Solid fuel boiler, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



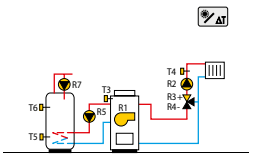
Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.



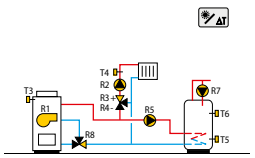
Gas boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



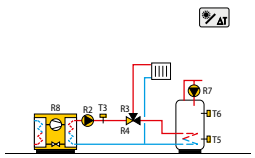
Oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



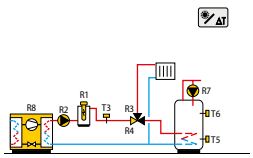
Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.



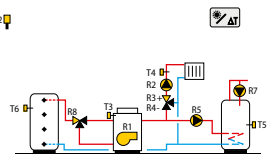
Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.



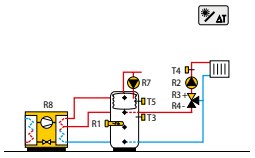
Heat pump, direct circuit, domestic hot water storage tank.



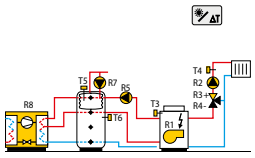
Heat pump, auxiliary heating with electricity, direct circuit, domestic hot water storage tank.



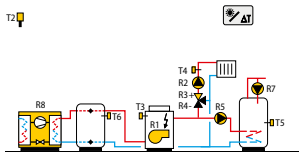
Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.



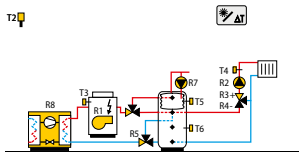
Heat pump, storage tank with integrated domestic hot water storage tank, auxiliary heating with electricity, mixing circuit.



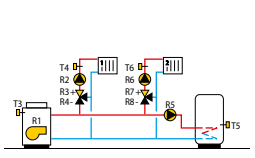
Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



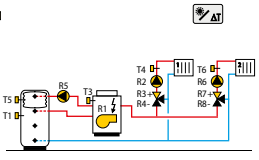
Heat pump, oil boiler, storage tank, mixing circuit, domestic hot water storage tank.



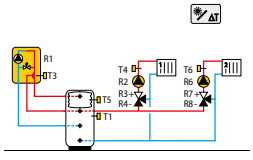
Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



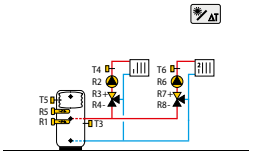
Oil boiler, 2 mixing circuits, domestic hot water storage tank.



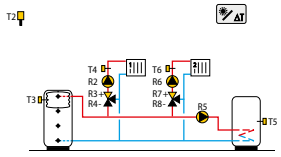
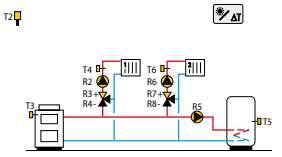
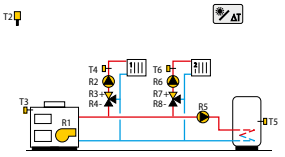
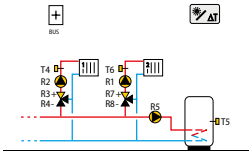
Storage tank with integrated domestic hot water storage tank, oil boiler, 2 mixing circuits.



Gas boiler, storage tank with integrated domestic hot water storage tank, 2 mixing circuits.



Storage tank with integrated domestic hot water storage tank, heating with electricity, 2 mixing circuits.

Hydraulic connections for WXE			
			
Storage tank, 2 mixing circuits, domestic hot water storage tank.	Solid fuel boiler, 2 mixing circuits, domestic hot water storage tank.	Combined boiler (solid fuel/oil), 2 mixing circuits, domestic hot water storage tank.	Extension scheme, combined boiler (solid fuel/oil), domestic hot water storage tank, 2 mixing circuits.

Accessories	Order code	Description
	1TFPT-000	Immersion temperature sensor SELTRON TF/Pt
	1VFPT-000	Surface temperature sensor SELTRON VF/Pt
	1FODPT-NN0	Outdoor temperature sensor SELTRON AFD/Pt
	1CFPT90-000	Flue gas temperature sensor SELTRON CF/Pt, 90 mm sensor
	1AVD0532M210-030	Actuator SELTRON AVD 05, 3-point, 5 Nm, 2 min, 230 V~
	1AVD0521M210-030	Actuator SELTRON AVD 05R, 2-point, 5 Nm, 1 min, 230 V~
	1RBD30F-060	Room unit SELTRON RCD20, wired connection, wall mounting

Weather compensated controllers
WXD10B | WXD10 | WXD20

Presentation



WXD heating controllers are installed in standard-dimension housings of 144×96 mm. They have been developed for the control of room heating or cooling as well as domestic hot water heating in single-family homes.
They provide the control of one or two heating circuits, switchover between heat sources, and the protection of the return line during the storage tank loading.
They are used for heating systems with one or two boilers, a heat pump, a storage tank, and a solar system.

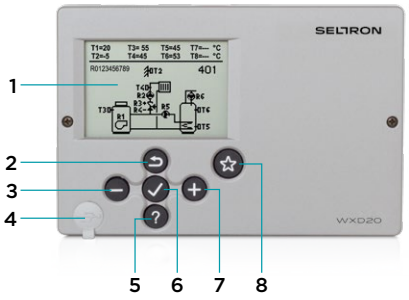
Typical application

- Radiator room heating system control.
- Floor heating or cooling system control.
- Convector heating or cooling system control.
- Wall or ceiling heating or cooling system control.
- Domestic hot water heating.

Features

- Up to 52 preset hydraulic schemes.
- They may be used for the control of new systems or to replace the installed controllers.
- Room heating or cooling according to the time programme.
- Domestic hot water heating according to the time programme.
- Solar system domestic hot water heating.
- Control of heating systems with a storage tank.
- The possibility of connecting 2 room units.
- BOOST function for intense room heating.
- Integrated solar system protection features.
- 13-language user interface.
- Wizard for an easy and quick device start-up.
- Operational diagnostics featuring error and excessive temperature warnings.
- Remote control with the help of the SeltronHome system.

Description of settings buttons



1 – Graphic display.
2 – Move backwards key.
3 – Move left or reduction.
4 – USB port for the connection with PC.
5 – Help.
6 – Menu entry or selection confirmation.
7 – Move right or increase.
8 – Programmable key.

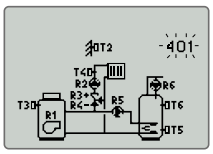
Typical application	WXD10B	WXD10	WXD20
Radiator room heating system control	●	●	●
Floor heating or cooling system control	●	●	●
Convector heating or cooling system control	●	●	●
Wall or ceiling heating or cooling system control	●	●	●
Domestic hot water heating	●	●	●
Technical characteristics			
No. of preset hydraulic schemes	7	17	52
No. of room units	2	2	2
No. of mechanical relays	7	8	9
No. of solid state relays	—	1	1
No. of temperature sensor inputs	8	8	8
No. of analogue outputs (0÷10 V or PWM) for the control of the circulation pump or an energy source	2	2	2
BUS option – the interconnection of WXD controllers and connection with other Seltron controllers	●	●	●
System control			
Control of a heating system with radiators	●	●	●
Floor heating or cooling system control	●	●	●
Convector heating or cooling system control	●	●	●
Wall or ceiling heating or cooling system control	●	●	●
Domestic hot water heating system control	●	●	●
Heating circuits control			
Direct circuit	●	●	●
Mixing circuit	●	●	●
Direct and mixing circuit	—	●	●
Two mixing circuits	—	—	●
Domestic hot water heating	●	●	●
Switchover between direct heating circuit and domestic hot water heating	●	●	●
Domestic hot water circulation	●	●	●
Automatic switchover between heat sources	—	—	●
Control of the supply line constant temperature	●	●	●
Single-stage storage tank loading	—	—	●
Heat source control			
Solid fuel boiler	●	●	●
Solid fuel boiler with a pellet burner	—	—	●
Liquid fuel boiler	●	●	●
Liquid fuel boiler with a two-stage burner	●	●	●
Combined boiler	—	—	●
Gas flow boiler	—	—	●
Heat pump	—	—	●
Storage tank	●	●	●
Auxiliary heating with electricity	●	●	●
Solar collectors	—	●	●
Domestic hot water heating			
With a primary heating source	●	●	●
With a storage tank	●	●	●
Using a solar system	—	●	●
User functions			
Room heating or cooling according to the time programme	●	●	●
Automatic winter/summer mode switchover	●	●	●
PARTY function – activation of the comfort operation mode	●	●	●
ECO function – activation of the economy operation mode	●	●	●
HOLIDAY function – activation of the operation mode during the holiday season	●	●	●
Domestic hot water heating according to the time programme	●	●	●
One-time domestic hot water heating	●	●	●
BOOST function for intense room heating	●	●	●
Function for screed drying	●	●	●

Heating system protection	WXD10B	WXD10	WXD20
Anti-legionella protection (for a controlled energy source)	●	●	●
Storage tank overheating protection	●	●	●
Boiler overheating protection	●	●	●
Collector frost protection	—	●	●
Forced pump start at the highest collector temperature	—	●	●
Switching off of the collectors when the safety temperature has been exceeded	—	●	●
Solar system protection when collectors are overheating	—	●	●
Storage tank recooling to the desired temperature	—	●	●
Periodic starting up of pumps and mixing valves during a period of inactivity	●	●	●
A comprehensive overview of the heating system operation			
Graphic display of temperatures according to days of the last week	●	●	●
Detailed display of temperatures for the current day	●	●	●
Notifications on the activated protection functions and warnings about system failures	●	●	●
Possibility to simulate sensors and analyse the system operation	●	●	●
Remote access			
Possibility of USB connection to a PC	●	●	●
Connectivity to the SeltronHome platform providing remote control using a smartphone or tablet	●	●	●
Setup and installation			
Wizard for an easy and quick device start-up	●	●	●
13-language user interface: EN, DE, FR, NL, PL, ES, SL, IT, CS, LT, GR, HU, HR	●	●	●
Setting up the operation by selecting the hydraulic scheme	●	●	●
“Help” button for quick help with the setup	●	●	●
Graphically adjustable time programmes	●	●	●
Option to simulate the system operation	●	●	●
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	●	●	●
Option for programming free outputs	●	●	●
Possibility of installation onto the wall or into a cutout (opening)	●	●	●
Simple installation and connection	●	●	●

Outlined functions



Step 1


Step 2



Steps 3 and 4

Start-up wizard

The WXD controller is equipped with a start-up wizard, which takes you through the initial setup of the controller in 3 or 4 steps.

Step 1: language selection.

Step 2: hydraulic scheme selection.

Step 3: setting the heating curve for the first heating circuit.

Step 4: setting the heating curve for the second heating circuit.



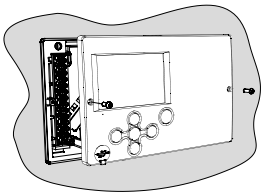
USB port and programmable key

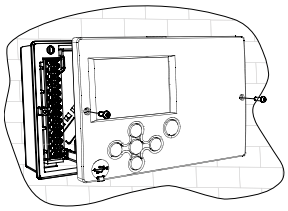
The WXD controller may be connected to personal computer and SELCONTROL via a mini-USB port. The SELCONTROL software package is a connection interface and a software. It is used to control the 3rd generation of SELTRON heating control. With the help of the SELCONTROL software, we can change the parameters of the controller via a personal computer, activate or deactivate user functions, and edit and save the information about the controller setup.
With the programmable key, the user sets the shortcut to the most frequently used settings in the menu.

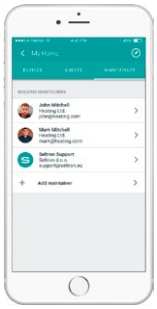


WXD controller installation

The WXD controller is used for the control of modern heating systems or as a replacement controller in older heating systems.
It can be installed into a standard cutout on the boiler or on the wall.

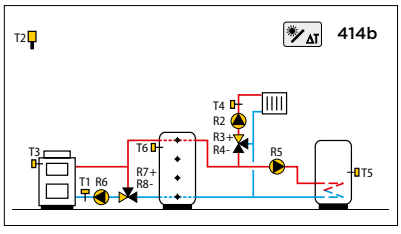

Example of installation into a cutout or aperture on the boiler


Example of installation onto the wall



Remote control with the help of SeltronHome system

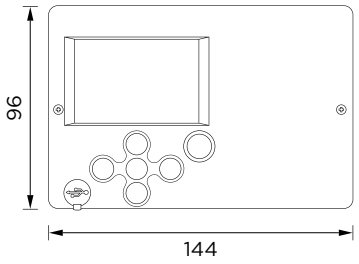
The WXD controllers may be connected to the SeltronHome platform, which provides the heating remote control using a smartphone or tablet.
Remote control is enabled through the CLAUSIUS application for the end user and the KELVIN app for service technicians.
The CLAUSIUS application provides the setting of the desired temperature, heating operation mode, and an overview and the possibility to change time programmes via a smartphone or a computer.



Typical hydraulic scheme

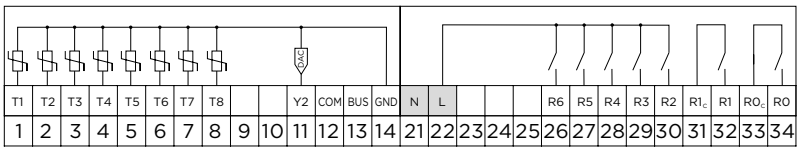
Solid fuel boiler, storage tank, mixing circuit, domestic hot water storage tank.

Example: hydraulic scheme 414b.

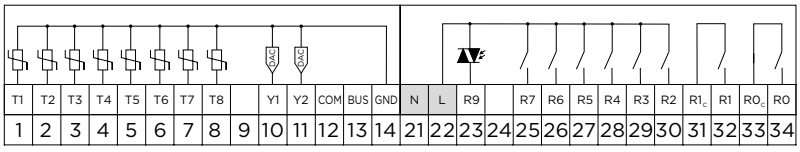
Technical specifications	WXD10B	WXD10	WXD20
Backlit graphic display	•	•	•
Operating hours meter	•	•	•
Weekly program timer	•	•	•
Connection voltage	230 V~, 50 Hz		
Own consumption	2.5 W		
Energy consumption in the standby mode	Max. 0.5 W		
No. of inputs	8 pcs temperature sensor (Pt 1000)		
No. of outputs	7 pcs mechanical 2 pc analogue 0÷10 V (Y2)	8 pcs mechanical 1 pc electronic 2 pcs PWM or analogue 0÷10 V (Y1, Y2)	9 pcs mechanical 1 pc electronic 2 pcs PWM or analogue 0÷10 V (Y1, Y2)
Relay outputs	4 (1) A~, 230 V~		
Triac output	1 (1) A~, 230 V~		
Clock power supply	Battery CR2032 (Li-Mn) 3 V		
Clock accuracy	+/-1 s (24 h) at 20 °C		
Degree of protection	IP20 according to EN 60529		
Safety class	I according to EN 60730-1		
Operation mode	1B according to EN 60730-1		
Type of temperature sensors	Pt1000 or KTY10		
Operation mode	3-point PID		
Housing material	ASA + PC – thermoplastic		
Permissible ambient temperature	5÷40 °C		
Storage temperature	-20÷65 °C		
Product weight	430 g	440 g	430 g
No. of pieces in the packaging unit	6 pcs		
Dimensions			

Electrical connection

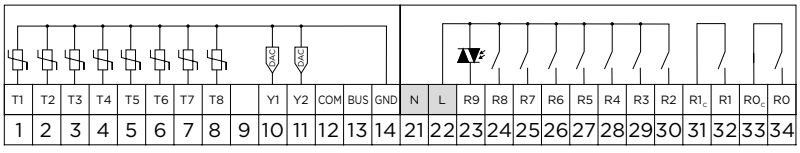
WXD10B



WXD10

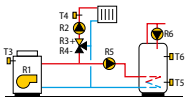


WXD20



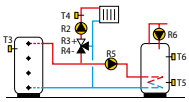
Hydraulic connections for WXD10B, WXD10, WXD20

401



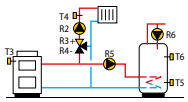
Oil boiler, mixing circuit, domestic hot water storage tank.

401b



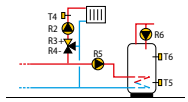
Storage tank, mixing circuit, domestic hot water storage tank.

401c



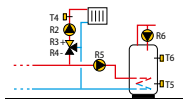
Solid fuel boiler, mixing circuit, domestic hot water storage tank.

401d



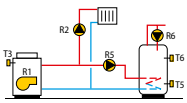
No-boiler system – mixing circuit, domestic hot water storage tank.

401e



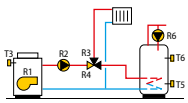
Extension scheme – mixing circuit, domestic hot water storage tank.

402



Oil boiler, direct circuit, domestic hot water storage tank.

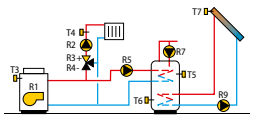
403



Oil boiler, direct circuit, domestic hot water storage tank.

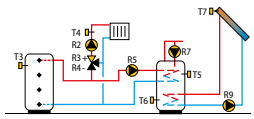
Hydraulic connections for WXD10, WXD20

404



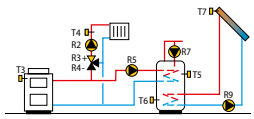
Oil boiler, mixing circuit, domestic hot water storage tank, solar collectors.

404b



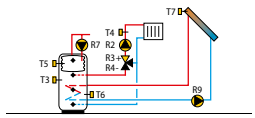
Storage tank, mixing circuit, domestic hot water storage tank, solar collectors.

404c



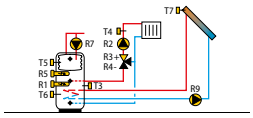
Solid fuel boiler, mixing circuit, domestic hot water storage tank, solar collectors.

404d



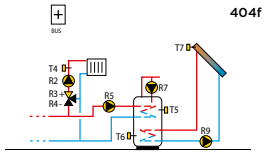
Storage tank with integrated domestic hot water storage tank, mixing circuit, solar collectors.

404e



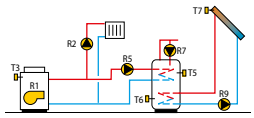
Storage tank with integrated domestic hot water storage tank, mixing circuit, auxiliary heating with electricity, solar collectors.

404f



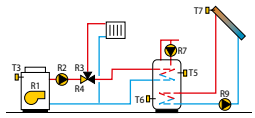
Extension scheme – mixing circuit, domestic hot water storage tank, solar collectors.

405



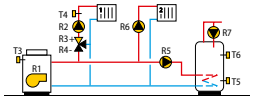
Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.

406



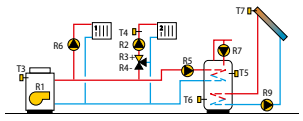
Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.

407



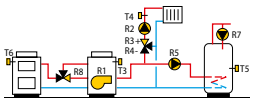
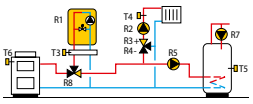
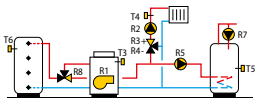
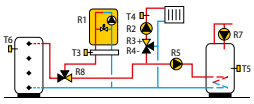
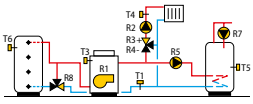
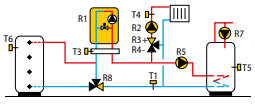
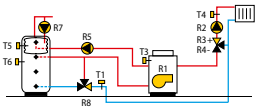
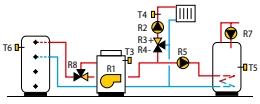
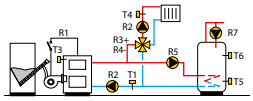
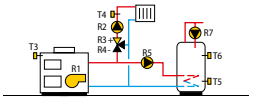
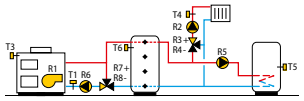
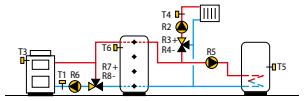
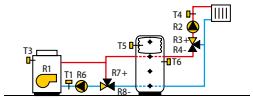
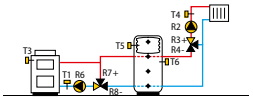
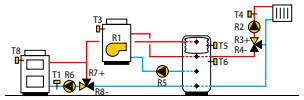
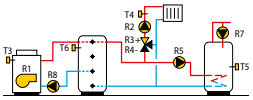
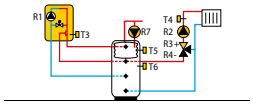
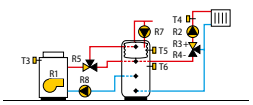
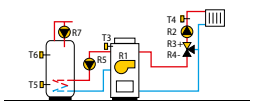
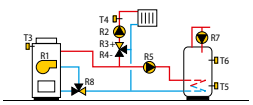
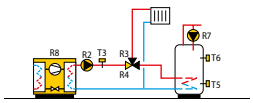
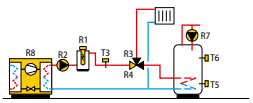
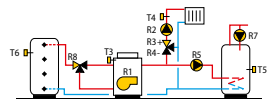
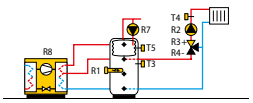
Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank.

407b

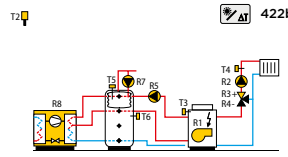
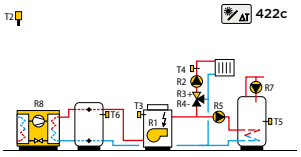
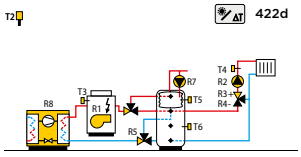
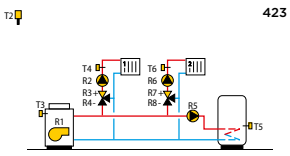
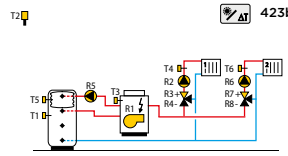
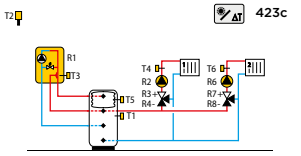
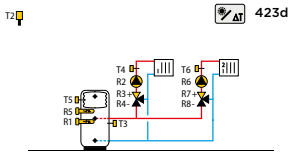
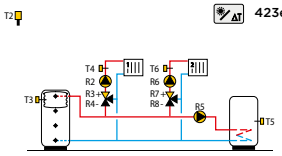
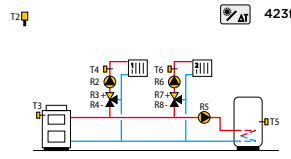
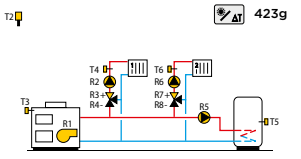
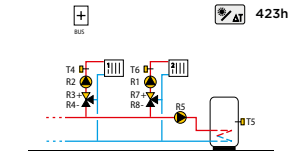


Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank, solar collectors.

Hydraulic connections for WXD20

408  Solid fuel boiler, oil boiler, mixing circuit, domestic hot water storage tank.	408b  Solid fuel boiler, gas boiler, mixing circuit, domestic hot water storage tank.	409  Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.	409b  Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.
410  Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.	410b  Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.	410c  Storage tank with integrated domestic hot water storage tank, oil boiler, mixing circuit.	411  Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.
412  Pellet boiler, mixing circuit, domestic hot water storage tank.	413  Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.	414  Combined boiler (solid fuel/oil), storage tank, mixing circuit, domestic hot water storage tank.	414b  Solid fuel boiler, storage tank, mixing circuit, domestic hot water storage tank.
415  Combined boiler (solid fuel/oil), storage tank with integrated domestic hot water storage tank, mixing circuit.	415b  Solid fuel boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	415c  Solid fuel boiler, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	416  Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.
416b  Gas boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	416c  Oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	417  Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.	418  Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.
419  Heat pump, direct circuit, domestic hot water storage tank.	420  Heat pump, auxiliary heating with electricity, direct circuit, domestic hot water storage tank.	421  Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.	422  Heat pump, storage tank with integrated domestic hot water storage tank, auxiliary heating with electricity, mixing circuit.

Hydraulic connections for WXD20

 422b Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	 422c Heat pump, oil boiler, storage tank, mixing circuit, domestic hot water storage tank.	 422d Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	 423 Oil boiler, 2 mixing circuits, domestic hot water storage tank.
 423b Storage tank with integrated domestic hot water storage tank, oil boiler, 2 mixing circuits.	 423c Gas boiler, storage tank with integrated domestic hot water storage tank, 2 mixing circuits.	 423d Storage tank with integrated domestic hot water storage tank, heating with electricity, 2 mixing circuits.	 423e Storage tank, 2 mixing circuits, domestic hot water storage tank.
 423f Solid fuel boiler, 2 mixing circuits, domestic hot water storage tank.	 423g Combined boiler (solid fuel/oil), 2 mixing circuits, domestic hot water storage tank.	 423h Extension scheme, combined boiler (solid fuel/oil), domestic hot water storage tank, 2 mixing circuits.	

Item	Order code	Description
	2WXD10B21100-510	Weather compensated controller SELTRON WXD10B with sensors (2xTF/Pt, 1AF/Pt and 1VF/Pt)
	2WXD1041100-510	Weather compensated controller SELTRON WXD10 with sensors (4xTF/Pt, 1AF/Pt and 1VF/Pt)
	2WXD2041100-510	Weather compensated controller SELTRON WXD20 with sensors (4xTF/Pt, 1AF/Pt and 1VF/Pt)

Accessories

	1TFPT-000	Immersion temperature sensor SELTRON TF/Pt
	1VFPT-000	Surface temperature sensor SELTRON VF/Pt
	1FODPT-NN0	Outdoor temperature sensor SELTRON AFD/Pt
	1CFPT90-000	Flue gas temperature sensor SELTRON CF/Pt, 90 mm sensor
	1AVD0532M210-030	Actuator SELTRON AVD 05, 3-point, 5 Nm, 2 min, 230 V~
	1AVD0521M210-030	Actuator SELTRON AVD 05R, 2-point, 5 Nm, 1 min, 230 V~
	1RBD30F-060	Room unit SELTRON RCD20, wired connection, wall mounting
	1GWD3E-050	Communication module SELTRON GWD3E

Weather compensated and boiler controllers
KXD10B | KXD10 | KXD20

Presentation



KXD controllers are the new generation of powerful boiler and weather compensated controllers, which also provide the control of room heating and domestic hot water heating in addition to the liquid fuel boiler control. They provide the control of one or two heating circuits, switchover between heat sources, and the protection of the return line during the storage tank loading. They are used with liquid fuel boilers.

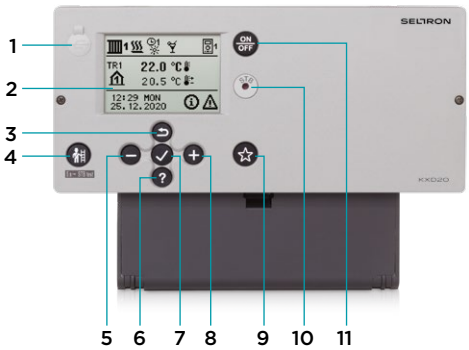
Typical application

- Liquid fuel boiler control.
- Radiator room heating system control.
- Floor heating or cooling system control.
- Convector heating or cooling system control.
- Wall or ceiling heating or cooling system control.
- Domestic hot water heating.

Features

- Up to 52 preset hydraulic schemes.
- Boiler and room control.
- Safety functions for boiler protection (Frost and overheating protection of boiler, mechanical thermo fuse to switch the boiler off at exceeded temperature 110 °C).
- Room heating or cooling according to the time programme.
- Domestic hot water heating according to the time programme.
- Solar system domestic hot water heating.
- Control of heating systems with a storage tank.
- The possibility of connecting 2 room units.
- BOOST function for intense room heating.
- Integrated solar system protection features.
- 13-language user interface.
- It can be installed on the wall, in the boiler housing or to the external boiler panels by means of a console.
- Wizard for an easy and quick device start-up.
- Operational diagnostics featuring error and excessive temperature warnings.
- Remote control with the help of the SeltronHome system.

Description of settings buttons



1 – Graphic display.
2 – Esc Move backwards key.
3 – Help Help key.
4 – ← Move left or reduction key.
5 – → Move right or increase key.
6 – OK Menu entry or selection confirmation key.

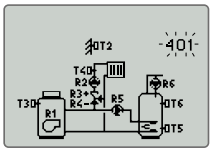
Typical application	KXD10B	KXD10	KXD20
Liquid fuel boiler control	●	●	●
Radiator room heating system control	●	●	●
Floor heating or cooling system control	●	●	●
Convector heating or cooling system control	●	●	●
Wall or ceiling heating or cooling system control	●	●	●
Domestic hot water heating	●	●	●
Technical characteristics			
No. of preset hydraulic schemes	7	17	52
No. of room units	2	2	2
No. of mechanical relays	7	8	9
No. of solid state relays	—	1	1
No. of temperature sensor inputs	8	8	8
No. of analogue outputs (0÷10 V or PWM) for the control of the circulation pump or an energy source	2	2	2
BUS option – the interconnection of KXD controllers and connection with other Seltron controllers	●	●	●
System control			
Heating system with radiators	●	●	●
Floor heating system	●	●	●
Convector heating system	●	●	●
Wall and ceiling heating systems	●	●	●
Domestic hot water heating systems	●	●	●
Heating circuits control			
Direct heating circuit	●	●	●
Mixing heating circuit	●	●	●
Direct and mixing heating circuit	—	●	●
Two mixing heating circuits	—	—	●
Domestic hot water heating	●	●	●
Switchover between direct heating circuit and domestic hot water heating	●	●	●
Domestic hot water circulation	●	●	●
Automatic switchover between heat sources	—	—	●
Control of the supply line constant temperature	●	●	●
Single-stage storage tank loading	—	—	●
Heat source control			
Solid fuel boiler	●	●	●
Solid fuel boiler with a pellet burner	—	—	●
Liquid fuel boiler	●	●	●
Liquid fuel boiler with a two-stage burner	●	●	●
Combined boiler	—	—	●
Gas flow boiler	—	—	●
Heat pump	—	—	●
Storage tank	●	●	●
Auxiliary heating with electricity	●	●	●
Solar collectors	—	●	●
Domestic hot water heating			
With a primary heating source	●	●	●
With a storage tank	●	●	●
Using a solar system	—	●	●
User functions			
Room heating or cooling according to the time programme	●	●	●
Automatic winter/summer mode switchover	●	●	●
PARTY function – activation of the comfort operation mode	●	●	●
ECO function – activation of the economy operation mode	●	●	●
HOLIDAY function – activation of the operation mode during the holiday season	●	●	●
Domestic hot water heating according to the time programme	●	●	●
One-time domestic hot water heating	●	●	●
BOOST function for intense room heating	●	●	●
Function for screed drying	●	●	●

Heating system protection	KXD10B	KXD10	KXD20
Anti-legionella protection (for a controlled energy source)	●	●	●
Storage tank overheating protection	●	●	●
Boiler overheating protection	●	●	●
Collector frost protection	—	●	●
Forced pump start at the highest collector temperature	—	●	●
Switching off of the collectors when the safety temperature has been exceeded	—	●	●
Solar system protection when collectors are overheating	—	●	●
Storage tank recooling to the desired temperature	—	●	●
Periodic starting up of pumps and mixing valves during a period of inactivity	●	●	●
A comprehensive overview of the heating system operation			
Graphic display of temperatures according to days of the last week	●	●	●
Detailed display of temperatures for the current day	●	●	●
Notifications on the activated protection functions and warnings about system failures	●	●	●
Possibility to simulate sensors and analyse the system operation	●	●	●
Remote access			
Possibility of USB connection to a PC	●	●	●
Connectivity to the SeltronHome platform providing remote control using a smartphone or tablet	●	●	●
Setup and installation			
Wizard for an easy and quick device start-up	●	●	●
13-language user interface: ENG, DEU FRE, DUT, POL, SPA, SLV, ITA, CZE, LIT, GRE, HUN, HRV	●	●	●
Setting up the operation by selecting the hydraulic scheme	●	●	●
“Help” button for quick help with the setup	●	●	●
Graphically adjustable time programmes	●	●	●
Option to simulate the system operation	●	●	●
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	●	●	●
Option for programming free outputs	●	●	●
It can be installed on the wall, in the boiler housing or to the external boiler panels by means of a console	●	●	●
Simple installation and connection	●	●	●

Outlined functions



Step 1



Step 2



Steps 3 and 4

Start-up wizard

The KXD controller is equipped with a start-up wizard, which takes you through the initial setup of the controller in 3 or 4 steps.

Step 1: language selection.

Step 2: hydraulic scheme selection.

Step 3: setting the heating curve for the first heating circuit.

Step 4: setting the heating curve for the second heating circuit.



Emission measurement and STB testing

The mode for measuring flue gas emissions is activated by pressing the key. In this mode, the controller activates the boiler to enable burner setup and emission measurements.

By pressing the STB key, we activate the thermal fuse test. In this mode, the controller starts the boiler and heats it to 110 °C or until the STB fuse switches it off.

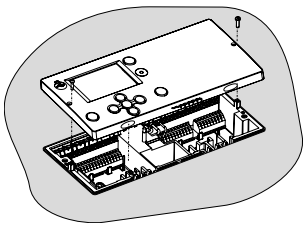
The red-coloured STB symbol informs that the thermal fuse is active.

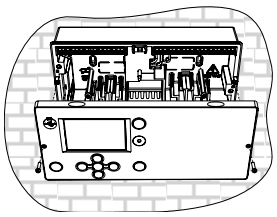


Example of installation onto the boiler

KXD controller installation

The KXD controller may be installed in a pre-prepared aperture on the boiler or on the external boiler panels be means of a console. If that is not possible, it can be also installed on the wall.

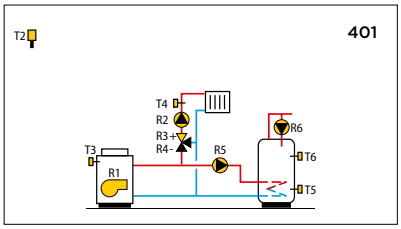

Example installation into a cutout or an aperture on the boiler


Example of installation onto the wall



Remote control with the help of SeltronHome system

The KXD controllers may be connected to the SeltronHome platform, which provide the heating remote control using a smartphone or tablet.
Remote control is enabled through the CLAUSIUS application for the end user and the KELVIN app for service technicians.
In addition to remote management of the heating, the applications also provide an easy overview of the consumption and monitoring of heating oil costs.



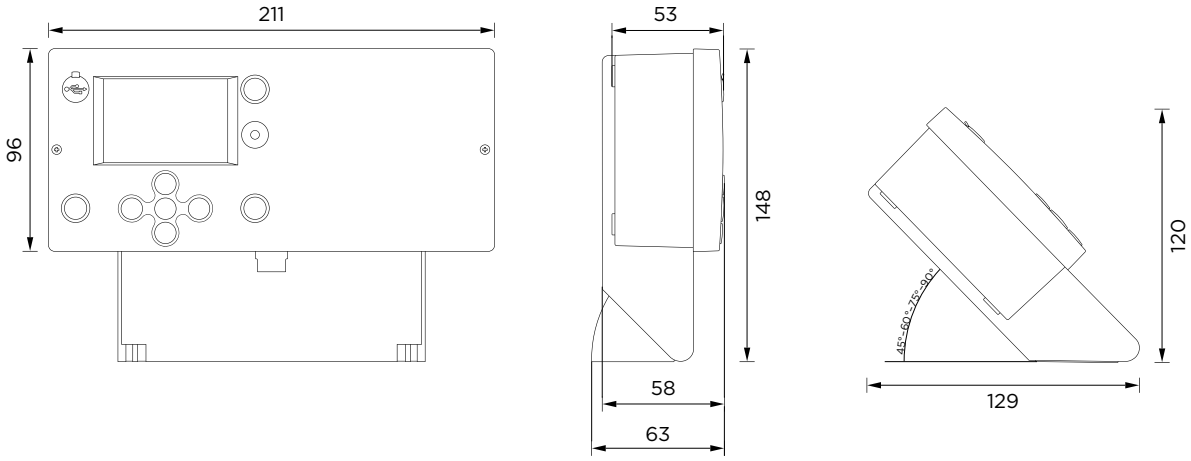
Typical hydraulic connection

Oil boiler, mixing circuit, domestic hot water storage tank.

Example: hydraulic connection 401.

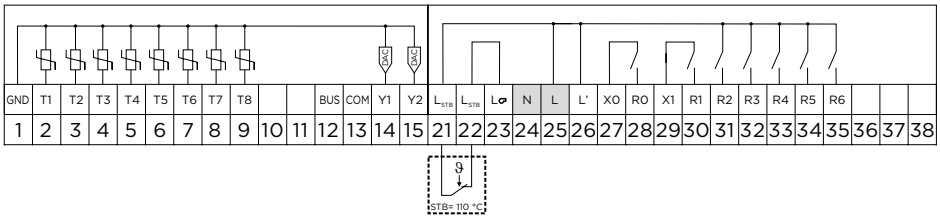
Technical specifications	KXD10B	KXD10	KXD20
Backlit graphic display	●	●	●
Operating hours meter	●	●	●
Weekly program timer	●	●	●
Integrated STB thermal protection	●	●	●
Connection voltage	230 V~, 50 Hz		
Own consumption	4.5 W		
Energy consumption in the standby mode	Max. 0.5 W		
No. of inputs	8 pcs temperature sensor (Pt 1000)		
No. of outputs	7 pcs mechanical 2 pcs PWM or analogue 0÷10 V (Y2)	8 pcs mechanical 1 pc electronic 2 pcs PWM or analogue 0÷10 V (Y1, Y2)	9 pcs mechanical 1 pc electronic 2 pcs PWM or analogue 0÷10 V (Y1, Y2)
Relay outputs	4 (1) A~, 230 V~		
Triac output	1 (1) A~, 230 V~		
Clock power supply	Battery CR2032 (Li-Mn) 3 V		
Clock accuracy	+/-1 s (24 h) at 20 °C		
Degree of protection	IP20 according to EN 60529		
Safety class	II according to EN 60730-1		
Operation mode	1B according to EN 60730-1		
Type of temperature sensors	Pt1000 or KTY10		
Operation mode	3-point PID		
Housing material	ASA+PC – thermoplastic		
Permissible ambient temperature	5÷40 °C		
Storage temperature	-20÷65 °C		
Product weight	1.070 g	1.075 g	1.080 g
No. of pieces in the packaging unit	6 pcs		

Dimensions

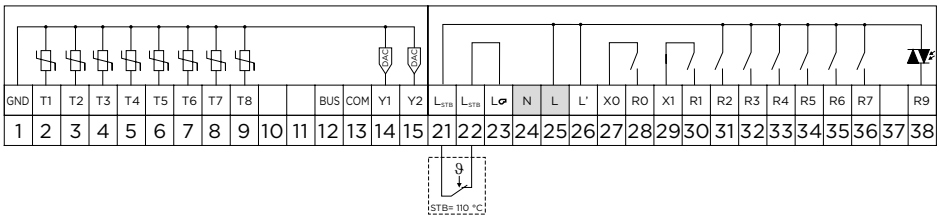


Electrical connection

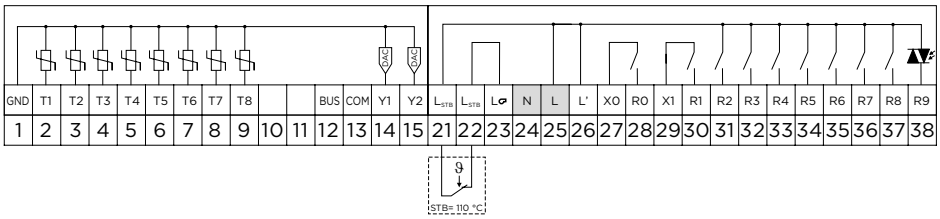
KXD10B



KXD10

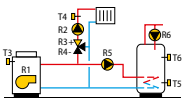


KXD20



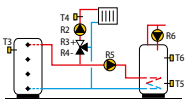
Hydraulic connections for KXD10B, KXD10, KXD20

401



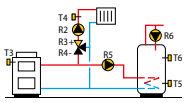
Oil boiler, mixing circuit, domestic hot water storage tank.

401b



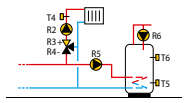
Storage tank, mixing circuit, domestic hot water storage tank.

401c



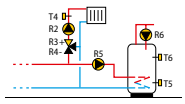
Solid fuel boiler, mixing circuit, domestic hot water storage tank.

401d



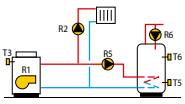
No-boiler system – mixing circuit, domestic hot water storage tank.

401e



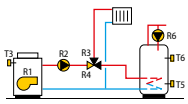
Extension scheme – mixing circuit, domestic hot water storage tank.

402



Oil boiler, direct circuit, domestic hot water storage tank.

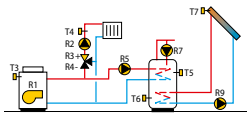
403



Oil boiler, direct circuit, domestic hot water storage tank.

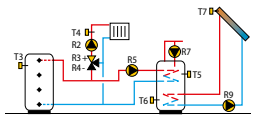
Hydraulic connections for KXD10, KXD20

404



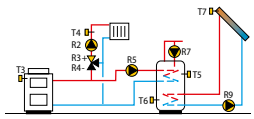
Oil boiler, mixing circuit, domestic hot water storage tank, solar collectors.

404b



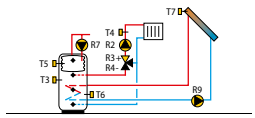
Storage tank, mixing circuit, domestic hot water storage tank, solar collectors.

404c



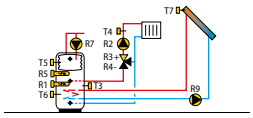
Solid fuel boiler, mixing circuit, domestic hot water storage tank, solar collectors.

404d



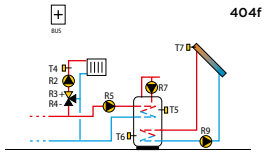
Storage tank with integrated domestic hot water storage tank, mixing circuit, solar collectors.

404e



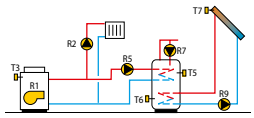
Storage tank with integrated domestic hot water storage tank, mixing circuit, auxiliary heating with electricity, solar collectors.

404f



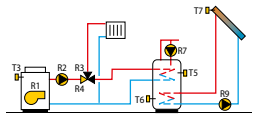
Extension scheme – mixing circuit, domestic hot water storage tank, solar collectors.

405



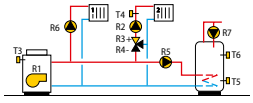
Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.

406



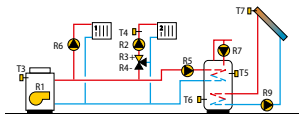
Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.

407



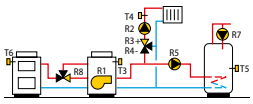
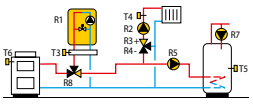
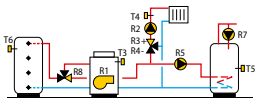
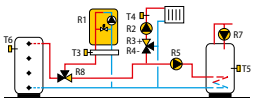
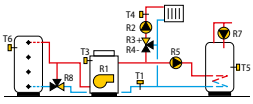
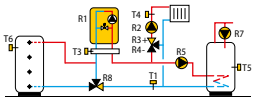
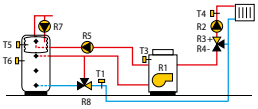
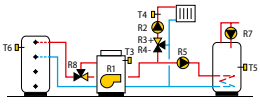
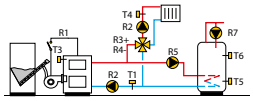
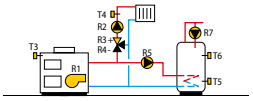
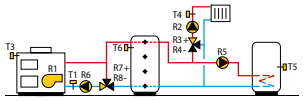
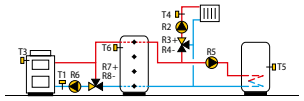
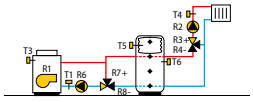
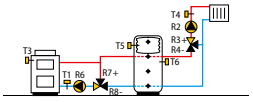
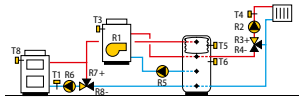
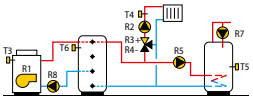
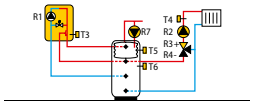
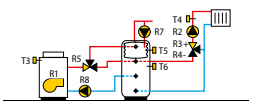
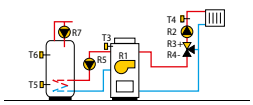
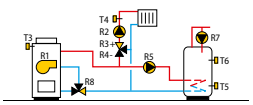
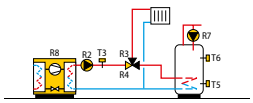
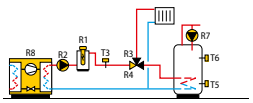
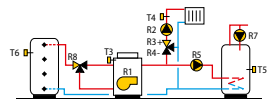
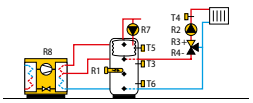
Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank.

407b

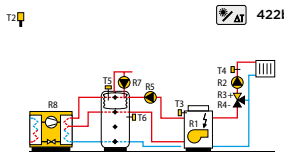


Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank, solar collectors.

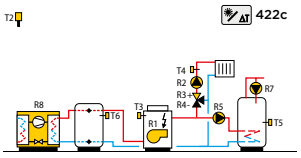
Hydraulic connections for KXD20

408  Solid fuel boiler, oil boiler, mixing circuit, domestic hot water storage tank.	408b  Solid fuel boiler, gas boiler, mixing circuit, domestic hot water storage tank.	409  Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.	409b  Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.
410  Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.	410b  Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.	410c  Storage tank with integrated domestic hot water storage tank, oil boiler, mixing circuit.	411  Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.
412  Pellet boiler, mixing circuit, domestic hot water storage tank.	413  Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.	414  Combined boiler (solid fuel/oil), storage tank, mixing circuit, domestic hot water storage tank.	414b  Solid fuel boiler, storage tank, mixing circuit, domestic hot water storage tank.
415  Combined boiler (solid fuel/oil), storage tank with integrated domestic hot water storage tank, mixing circuit.	415b  Solid fuel boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	415c  Solid fuel boiler, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	416  Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.
416b  Gas boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	416c  Oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.	417  Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.	418  Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.
419  Heat pump, direct circuit, domestic hot water storage tank.	420  Heat pump, auxiliary heating with electricity, direct circuit, domestic hot water storage tank.	421  Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.	422  Heat pump, storage tank with integrated domestic hot water storage tank, auxiliary heating with electricity, mixing circuit.

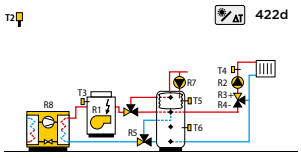
Hydraulic connections for KXD20



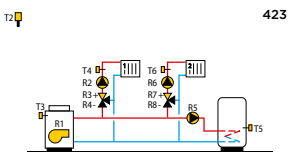
Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



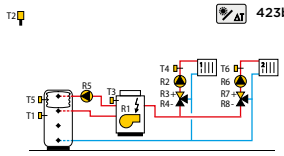
Heat pump, oil boiler, storage tank, mixing circuit, domestic hot water storage tank.



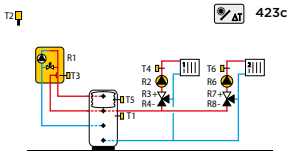
Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.



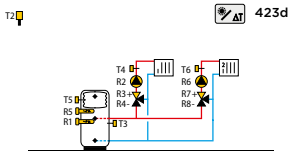
Oil boiler, 2 mixing circuits, domestic hot water storage tank.



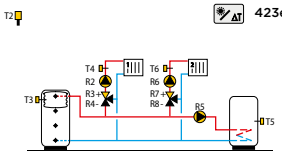
Storage tank with integrated domestic hot water storage tank, oil boiler,
2 mixing circuits.



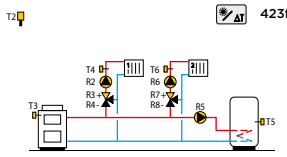
Gas boiler, storage tank with integrated domestic hot water storage tank,
2 mixing circuits.



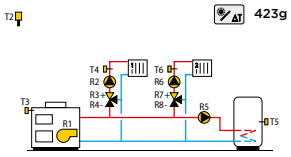
Storage tank with integrated domestic hot water storage tank, heating with electricity, 2 mixing circuits.



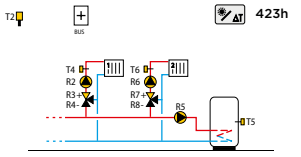
Storage tank, 2 mixing circuits, domestic hot water storage tank.



Solid fuel boiler, 2 mixing circuits, domestic hot water storage tank.



Combined boiler (solid fuel/oil), 2 mixing circuits, domestic hot water storage tank.



Extension scheme, combined boiler (solid fuel/oil), domestic hot water storage tank, 2 mixing circuits.

Item	Order code	Description
	2KXD10B2211-510	Boiler and weather compensated controller SELTRON KXD10B with sensors (2xTF/Pt, 1AF/Pt and 1VF/Pt)
	2KXD102411-510	Boiler and weather compensated controller SELTRON KXD10 with sensors (4xTF/Pt, 1AF/Pt and 1VF/Pt)
	2KXD202411-510	Boiler and weather compensated controller SELTRON KXD20 with sensors (4xTF/Pt, 1AF/Pt and 1VF/Pt)
Accessories		
	1TFPT-000	Immersion temperature sensor SELTRON TF/Pt
	1VFPT-000	Surface temperature sensor SELTRON VF/Pt
	1FODPT-NN0	Outdoor temperature sensor SELTRON AFD/Pt
	1CFPT90-000	Flue gas temperature sensor SELTRON CF/Pt, sensor 90 mm
	1AVD0532M210-030	Actuator SELTRON AVD 05, 3-point, 5 Nm, 2 min, 230 V~
	1AVD0521M210-030	Actuator SELTRON AVD 05R, 2-point, 5 Nm, 1 min, 230 V~
	1RBD30F-060	Room unit SELTRON RCD20, wired connection, wall mounting
	1GWD3E-050	Communication module SELTRON GWD3E

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.

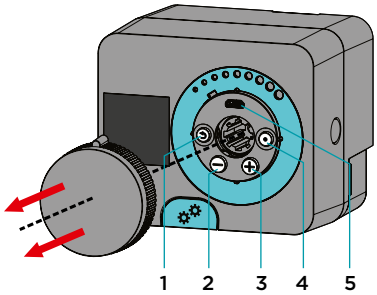
Typical application

- 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.

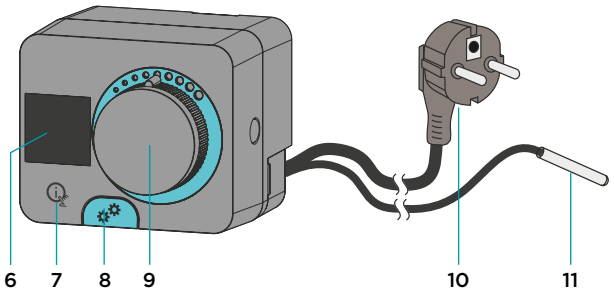
Description



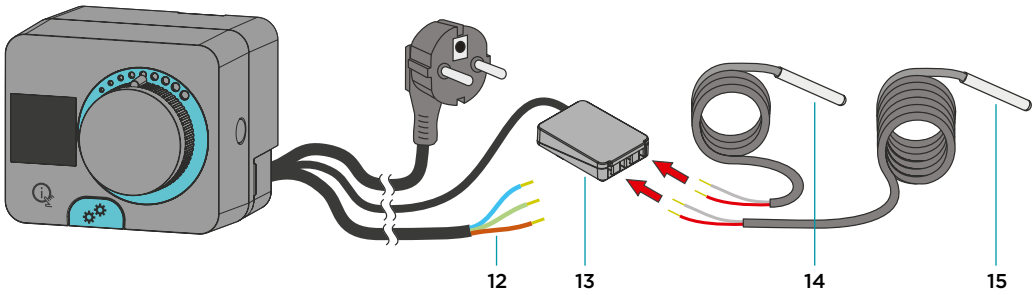
1 - Escape button
2 - Button for step backward or value decreasing
3 - Button for step forward or value increasing
4 - Button for Menu entering and selection confirmation
5 - USB connector for software update and connecting personal computer

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 (1 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	●	●
Technical characteristics		
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	—	●
Heating system protection		
Overheating protection	●	●
Undercooling protection	●	●
Antiblock function for the mixing valve	●	●
Antiblock function for the pump	—	●
Data display		
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	—	●
Remote access		
Possibility of USB connection to a PC	●	●
Setup and installation		
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.



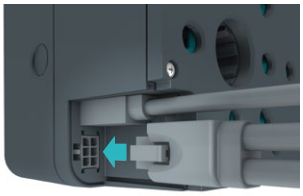
Quick installation

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.



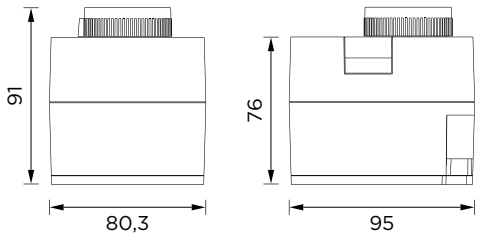
Plug-in connectors

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.

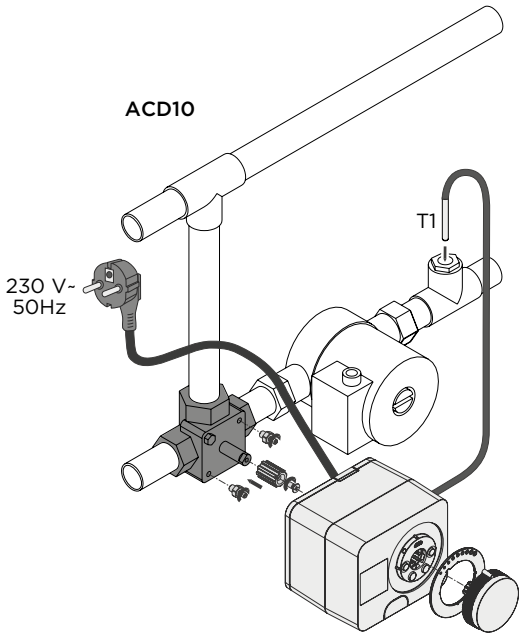


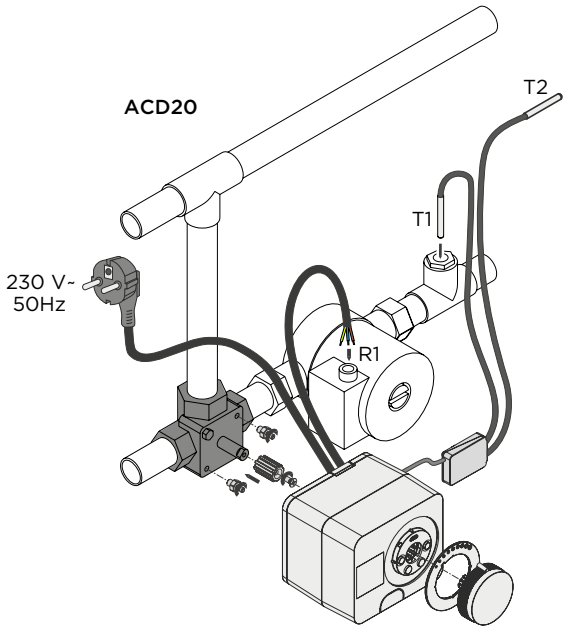
Graphic display

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		

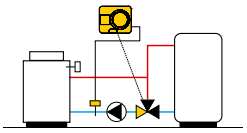
Electrical connection





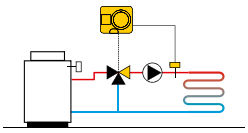
Hydraulic schemes for ACD10, ACD20

1



Control of return-pipe temperature.

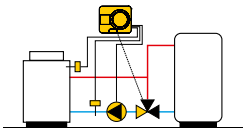
2



Control of supply temperature.

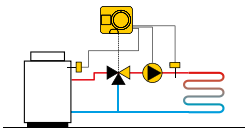
Hydraulic schemes for ACD20

1



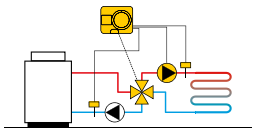
Control of return-pipe temperature.

2



Control of supply temperature.

3



Control of supply temperature and limitation of return-pipe temperature.

Item	Order code	Description
	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+NN0	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip (5 Nm)
	1AVDMSB+NN0	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip (10 Nm+)
	1AVDMSC+NN0	Afriso ARV series, Danfoss HFE series, Esbe 3F & 4F & T series
	1AVDMSD+NN0	Meibes new valve, Brv
	1AVDMSE+NN0	Landis & Gyr, Siemens – type VBI, type VBF
	1AVDMSF+NN0	Meibes old valve, Wita
	1AVDMSG+NN0	Esbe VRG series
	1AVDMSH+NN0	Brv 1060 & 1050 series, Herz MV3P & MV4P series, Womix MIX M
	1AVDMSI+NN0	Honeywell V544.., V543..
	1AVDMSJ+NN0	Paw K32, K33, K34
	1AVDMSK+NN0	Danfoss HRB, HRE
	1AVDMSL+NN0	Vexve AMV Series, ABV Series
	1AVDMST+NN0	Ball valve ISO 5211, flange F03, axis L/R 9 mm
	1AVDMSU+NN0	Ball valve ISO 5211, flange F04, axis L/R 9 mm
	1AVDMSV+NN0	Ball valve ISO 5211, flange F04, axis L/R 11 mm
	1AVDMSW+NN0	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

2-way zone ball valves, internal thread, quick connection for actuator **BVQ-2100**

Presentation



Typical application

- For domestic and commercial heating and cooling hydronic closed systems.
- For open/close applications.

Features

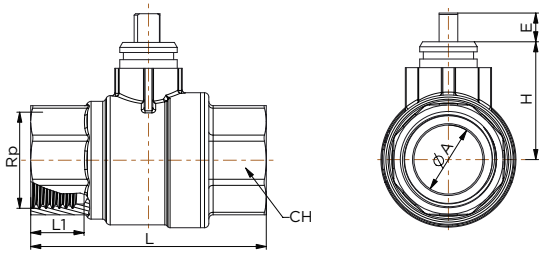
- Quick assembly of the actuator.
- DN15 ÷ DN50.
- Blow-out proof stem.
- Low operating torque.

Technical specifications

Connection for actuator	Quick system
Pipe connections	Rp internal thread ISO 7-1, Compression fittings EN1254-2
Nominal pressure	PN25
Max. diff. pressure	6 bar (max 2 bar for low noise operation)
Fluid temperature	-15 °C to +110 °C ; +130 °C short time peaks (fluid temp. can be limited depending on the actuator type)
Fluid	Water, water with glycol up to 50 % vol. The water quality requirements specified in VDI 2035 must be adhered to.
Max. leakage	Rate A according to: EN 12266-1:2003
Angle of rotation	90 °
Servicing	Maintenance-free. The installation of a strainer is recommended.
Installation position	Upright to horizontal (related to stem)
Materials	Body-CW617N brass; Sealing-PTFE, EPDM

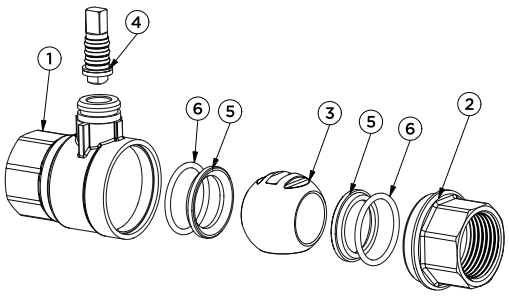
Dimensions

Type	DN	Connection	L(mm)	L1(mm)	H(mm)	ØA(mm)	E(mm)	CH(mm)	Kvsm³/h	Weight (g)
BVQ 2115	DN15	Rp 1/2 ”	62	15	31	15	10	25	17	
BVQ 2120	DN20	Rp 3/4 ”	68	16	34	20	10	31	28	
BVQ 2125	DN25	Rp 1 ”	82	17	38,5	25	10	38	39	
BVQ 2132	DN32	Rp 1 ¼ ”	86	19	43,5	32	10	48	84	
BVQ 2140	DN40	Rp 1 ½ ”	100	21	53	40	10	55	156	
BVQ 2150	DN50	Rp 2 ”	120	22	64	50	10	68	243	
BVQ 2320	DN20	Cf 22	72	15	34	20	10	-	28	



Structure of the 2-way ball valves

1 - Body
2 - Nut
3 - Ball
4 - Spindle with o-rings
5 - Seat
6 - O-ring



Featured functions



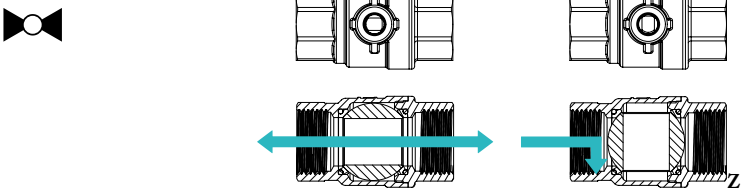
Quick assembly of the actuator

The actuator is assembled on the valve by hand, without tool use, by moving the actuator vertically downwards (snap).

Two positions of assembling the actuator to the valve is possible (2x180°). Slots must match the ribs on the valve neck.

To remove the actuator from the valve, the metal pin must be pulled out to the unlocking position.

Flow directions



Type code

BV Q 2 1 15

- **BV:** ball valve
- **Q:** quick connection for the actuator
- **2:** 2-way (3=3-way)
- **1:** internal thread (2=external thread, 3=compression fittings)
- **15:** DN15 (20=DN20, 25=DN25, 32=DN32; 40=DN40, 50=DN50)

The 2-way BVQ-2100 valves are adjusted by AQD actuators for zone valves.
Actuators controlled by 2-point signal are recomended for open/close aplications.
Valves can also be used in combination with other actuators from the AQD family controled by 3-point or modulating control signal.

Item		Order code	Description
Valves			
		1BVQ2115000	Valve BVQ2115, DN15, Rp 1/2 ”
		1BVQ2120000	Valve BVQ2120, DN20, Rp 3/4 ”
		1BVQ2125000	Valve BVQ2125, DN25, Rp 1 ”
		1BVQ2132000	Valve BVQ2132, DN32, Rp 1 ¼ ”
		1BVQ2140000	Valve BVQ2140, DN40, Rp 1 ½ ”
		1BVQ2150000	Valve BVQ2150, DN50, Rp 2 ”
		1BVQ2320000	Valve BVQ2320, DN20, Cf 22
Suitable Seltron actuators			
	Recommended for valves DN15 - DN32	1AQD05230222	Actuator AQDR, 2P, 5 Nm, 30 s, 230 VAC
		1AQD05B30222	Actuator AQDRS, 2P+S, 5 Nm, 30 s, 230 VAC
		1AQD05230422	Actuator AQDR, 2P, 5 Nm, 30 s, 24 VAC
		1AQD05B30422	Actuator AQDRS, 2P+S, 5 Nm, 30 s, 24 VAC
	Recommended for valves DN40 - DN50 and an alternative for valves DN32	1AQD101M2222	Actuator AQDR, 2P, 10 Nm, 60 s, 230 VAC
		1AQD101MB222	Actuator AQDRS, 2P+S, 10 Nm, 60 s, 230 VAC
		1AQD101M2422	Actuator AQDR, 2P, 10 Nm, 60 s, 24 VAC
		1AQD101MB422	Actuator AQDRS, 2P+S, 10 Nm, 60 s, 24 VAC

3-way zone ball valves, internal thread, quick connection for actuator **BVQ-3100**

Presentation



Typical application

- For domestic and commercial heating and cooling hydronic closed systems.
- For diverting and change over applications.

Features

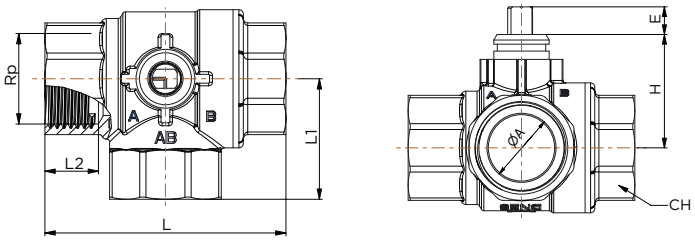
- Quick assembly of the actuator.
- DN15 ÷ DN32.
- Blow-out proof stem.
- Low operating torque.
- Mistake-proofing assembly of the actuator.

Technical specifications

Connection for actuator	Quick system
Pipe connections	Rp internal thread ISO 7-1
Nominal pressure	PN25
Max. diff. pressure	6 bar (max 2 bar for low noise operation)
Fluid temperature	-15 °C to +110 °C ;+130 °C short time peaks (fluid temp. can be limited depending on the actuator type)
Fluid	Water, water with glycol up to 50 % vol. The water quality requirements specified in VDI 2035 must be adhered to.
Max. leakage	Rate B according to: EN 12266-1:2003
Angle of rotation	90 °
Servicing	Maintenance-free. The installation of a strainer is recommended.
Installation position	Upright to horizontal (related to stem)
Materials	Body-CW617N brass; Sealing-PTFE, EPDM

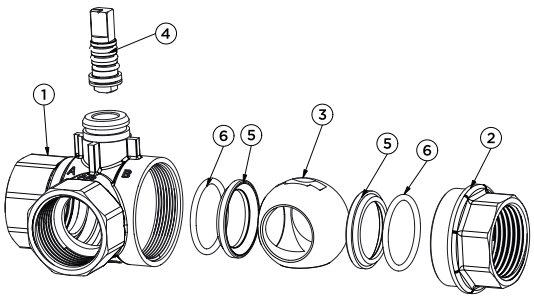
Dimensions

Type	DN	Connection	L(mm)	L1(mm)	L2(mm)	H(mm)	ØA(mm)	E(mm)	CH(mm)	Kvsm³/h	Weight (g)
BVQ3115L	DN15	Rp 1/2 ”	72	36	13	31	15	10	25	4,3	
BVQ3120L	DN20	Rp 3/4 ”	72	36	14	34	20	10	31	8,3	
BVQ3125L	DN25	Rp 1 ”	82	41	16	38,5	25	10	38	13	
BVQ3132L	DN32	Rp 1 ¼ ”	94	47	17	43,5	32	10	48	21	

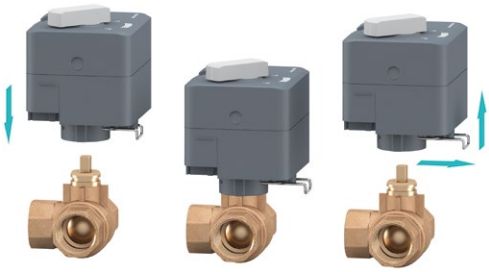


Structure of the 3-way ball valves

1 - Body
2 - Nut
3 - Ball
4 - Spindle with o-rings
5 - Seat
6 - O-ring



Featured functions



Quick assembly of the actuator

The actuator is assembled on the valve by hand, without tool use, by moving the actuator vertically downwards (snap).

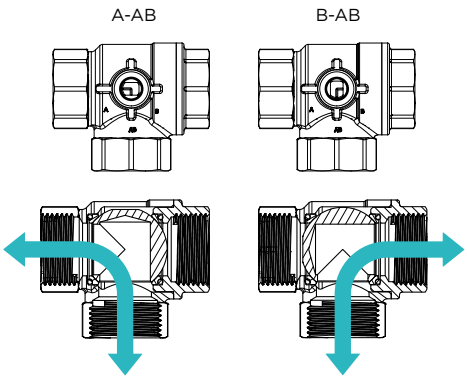
Mistake-proofing assembly of the actuator

Only one position of assembling the actuator to the valve is possible. Slots must match the ribs on the valve neck.

To remove the actuator from the valve, the metal pin must be pulled out to the unlocking position.

Flow directions





Type code

BV Q 3 1 15 L

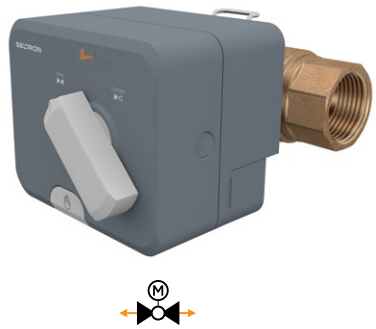
- **BV:** ball valve
- **Q:** quick connection for the actuator
- **3:** 3-way (2=2-way)
- **1:** internal thread (2=external thread, 3=compression fittings)
- **15:** DN15 (20=DN20, 25=DN25, 32=DN32)
- **L:** Ball shape (L-type)

AQD actuators are designed for operating 3-way BVQ3100 zone ball valves.
Actuators controlled by 2-point signal are recommended for diverting applications.
Valves can also be used in combination with other actuators from the AQD family, controlled by 3-point or modulating control signal.

Item		Order code	Description
Valves			
		1BVQ3115L00	Valve BVQ3115L, DN15, Rp 1/2 ", Ball type L
		1BVQ3120L00	Valve BVQ3120L, DN20, Rp 3/4 ", Ball type L
		1BVQ3125L00	Valve BVQ3125L, DN25, Rp 1 ", Ball type L
		1BVQ3132L00	Valve BVQ3132L, DN32, Rp 1 ¼ ", Ball type L
Suitable Seltron actuators			
	Recommended	1AQD05230223	Actuator AQDR, 2P, 5 Nm, 30 s, 230 VAC
		1AQD05B30223	Actuator AQDRS, 2P+S, 5 Nm, 30 s, 230 VAC
		1AQD05230423	Actuator AQDR, 2P, 5 Nm, 30 s, 24 VAC
		1AQD05B30423	Actuator AQDRS, 2P+S, 5 Nm, 30 s, 24 VAC
	An alternative	1AQD101M2223	Actuator AQDR, 2P, 10 Nm, 60 s, 230 VAC
		1AQD101MB223	Actuator AQDRS, 2P+S, 10 Nm, 60 s, 230 VAC

Actuators with 2-way BVQ2100 zone valves, with quick connection **AQD**

Presentation



AQD actuators are designed for operating 2-way BVQ2100 zone ball valves. Actuators can be used for various zone applications, in domestic and commercial heating and cooling hydronic closed systems. Innovative design provides a quick installation and removal without tools.
Actuators are recommended for on-off applications.

Typical application

- For controlling zone valves in heating or cooling systems.
- On-off zone control of heating systems.
- Various other heating devices.

Features

- Designed as unit, actuator with valve.
- Easy assembly and disassembly on the valves.
- Compact size.
- Designed as a product family with a wide range of products.
- Modular design, actuators can be customized to different customer needs.

Actuators types overview

Torque	AQDR	AQDRS	AQDY
5 Nm	●	●	●
10 Nm	●	●	●
15 Nm	●	●	●
Operation mode			
Two-point	●	●	—
Proportional 0(2)÷10 V or 0(4)÷20 mA	—	—	●
Possible running speeds			
15 s/90 °	*(5 Nm)	*(5 Nm)	*(5 Nm)
30 s/90 °	*(5 Nm)	*(5 Nm)	*(5 Nm)
60 s/90 °	●	●	●
Power supply			
230 V~, 50 Hz	●	●	—
24 V~, 50 Hz	●	●	—
24 V=	—	—	●
Pump ON switch			
Adjustable auxiliary switch for activating the circulation pump	—	●	—

Versions

Modular design

Actuators can be customized to different customer needs: Standard version (with all the features) and Basic version, especially suitable for installation in heat pumps and other OEM devices.

Actuators are available with following features:
- With or without manual control.
- With or without Led indication.
- With cable connection or connector.

Standard



Manual operation



LED indication



Basic



Outlined functions

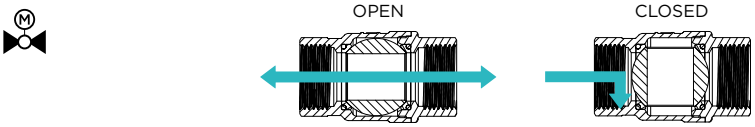


Quick installation

Innovative design and the installation system provide a quick installation and removal of the AQD actuator to/from the zone ball valve, without tools.

Two positions of assembling the actuator to the valve is possible (2x180°). Slots must match the ribs on the valve neck. To remove the actuator from the valve, the metal pin must be pulled out to the unlocking position.

Flow directions



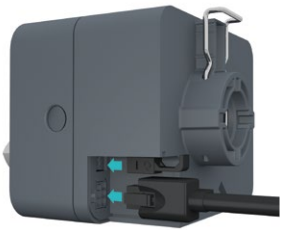


Signalization of operation

The signalization of operation:
- With LEDs on the actuator (Standard version).
- With mechanical indication on the actuator (Basic version).

Manual mode clutch

Manual mode clutch of the AQD actuator can be activated by pressing the key (Standard version).



Plug-in connector

Actuator AQD has integrated connector for quick connection of control cable.

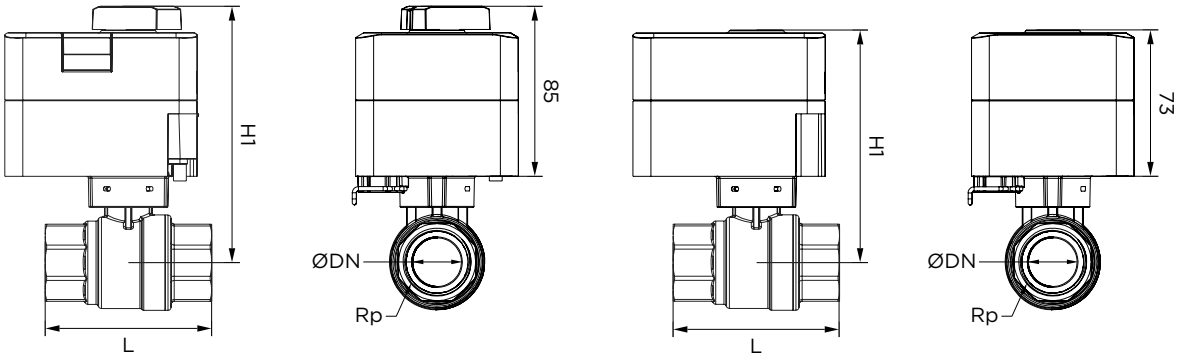
AUX switch

Actuators AQD have option of additional AUX switch for control of user up to 5 A, 230 V~.

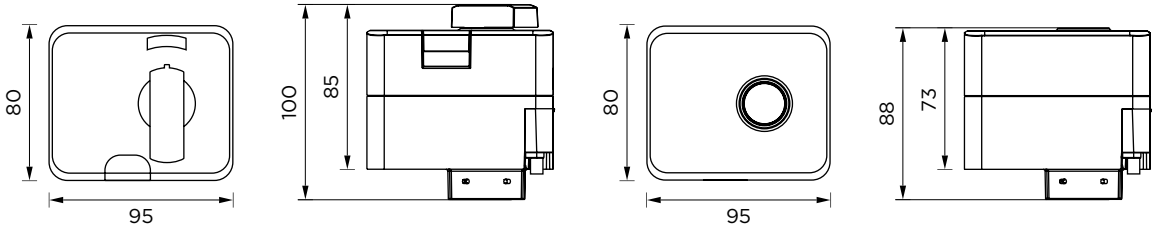
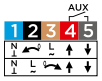
Selection of rotary direction

The cable cover should be removed to access the settings (2-point standard version).

Actuators with the BVQ2100 valves



Type	DN	Connection	L (mm)	H1 (mm)	H1 (mm) Basic
BVQ 2115	DN15	Rp 1/2 ”	62	119	107,5
BVQ 2120	DN20	Rp 3/4 ”	68	122	110,5
BVQ 2125	DN25	Rp 1 ”	82	126,5	115
BVQ 2132	DN32	Rp 1 ¼ ”	86	131,5	120
BVQ 2140	DN40	Rp 1 ½ ”	100	141	129,5
BVQ 2150	DN50	Rp 2 ”	120	152	140,5

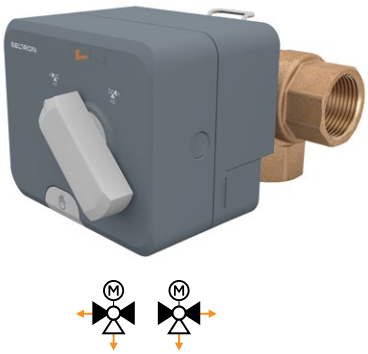
Technical specifications	AQDR	AQDRS	AQDY
Connection voltage	230 V~ or 24 V~		24 V~ or 24 V=
Own consumption	2,5÷5 W		
Auxiliary pump OFF switch	—	250 V~, 3 A	—
Degree of protection	IP 42		
Safety class	II for the voltage of 230 V~, III for the voltage of 24 V~/V=		
Applied standards	EN 60730-1, EN 60730-2-14		
Housing material	PC – dark grey		
Standard cable length	2 m		
Ambient temperature	0÷50 °C		
Storage temperature	-20÷75 °C		
Humidity	Max. 90 % RH, non-condensing		
Servicing	Maintenance-free		
Product weight	390÷860 g		
Dimensions			
Electrical connection			

AQD actuators are designed for operating 2-way BVQ2100 zone ball valves.
Actuators controlled by 2-point signal are recommended for on-off applications.
Valves can also be used in combination with other actuators from the AQD family, controlled by 3-point or modulating control signal.

Item		Order code	Description
AQD Standard - with led indication and manual control			
	Recommended for 2-way BVQ2100 zone ball valves DN15 - DN32	1AQD05230222	Actuator AQD, 2P, 5 Nm, 30 s, 230 VAC
		1AQD05B30222	Actuator AQD, 2P+S, 5 Nm, 30 s, 230 VAC
		1AQD05230422	Actuator AQD, 2P, 5 Nm, 30 s, 24 VAC
		1AQD05B30422	Actuator AQD, 2P+S, 5 Nm, 30 s, 24 VAC
	Recommended for 2-way BVQ2100 zone ball valves DN40 - DN50 and an alternative for DN32	AQD1021M222	Actuator AQD, 2P, 10 Nm, 60 s, 230 VAC
		AQD10B1M222	Actuator AQD, 2P+S, 10 Nm, 60 s, 230 VAC
		AQD1021M422	Actuator AQD, 2P, 10 Nm, 60 s, 24 VAC
		AQD10B1M422	Actuator AQD, 2P+S, 10 Nm, 60 s, 24 VAC

Actuators with 3-way BVQ3100 zone valves, with quick connection **AQD**

Presentation



AQD actuators are designed for operating 3-way BVQ3100 zone ball valves. Actuators can be used for various zone applications, in domestic and commercial heating and cooling hydronic closed systems. Innovative design provides a quick installation and removal without tools.
Actuators are recommended for switching applications.

Typical application

- For controlling zone valves in heating or cooling systems.
- Switchover between heating and cooling.
- Switchover between heating and domestic hot water heating.
- Switchover between various heat sources.
- Various other heating devices.

Features

- Designed as unit, actuator with valve.
- Easy assembly and disassembly on the valves.
- Compact size.
- Designed as a product family with a wide range of products.
- Modular design, actuators can be customized to different customer needs.
- Mistake-proofing assembly on the valves.

Actuators types overview

Torque	AQD	AQDR	AQDRS	AQDY
5 Nm	●	●	●	●
10 Nm	●	●	●	●
15 Nm	●	●	●	●
Operation mode				
Two-point	—	●	●	—
Three-point	●	—	—	—
Proportional 0(2)÷10 V or 0(4)÷20 mA	—	—	—	●
Possible running speeds				
15 s/90 °	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)
30 s/90 °	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)
60 s/90 °	●	●	●	●
Power supply				
230 V~, 50 Hz	●	●	●	—
24 V~, 50 Hz	●	●	●	—
24 V=	—	—	—	●
Pump ON switch				
Adjustable auxiliary switch for activating the circulation pump	—	—	●	—

Versions

Modular design

Actuators can be customized to different customer needs: Standard version (with all the features) and Basic version, especially suitable for installation in heat pumps and other OEM devices.

Actuators are available with following features:
- With or without manual control.
- With or without Led indication.
- With cable connection or connector.

Standard



Manual operation



LED indication



Basic



Outlined functions



Quick installation

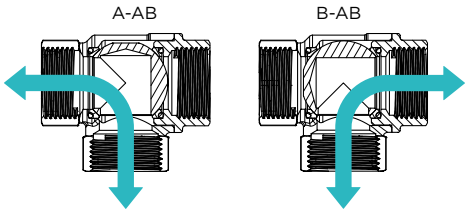
Innovative design and the installation system provide a quick installation and removal of the AQD actuator to/from the zone ball valve, without tools.

Mistake-proofing assembly of the actuator

Only one position of assembling the actuator to the valve is possible.
Slots must match the ribs on the valve neck. To remove the actuator from the valve, the metal pin must be pulled out to the unlocking position.

Flow directions





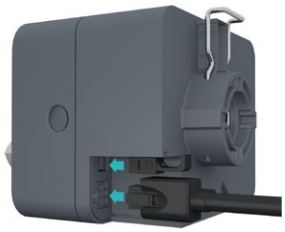


Signalization of operation

The signalization of operation:
- With LEDs on the actuator (Standard version).
- With mechanical indication on the actuator (Basic version).

Manual mode clutch

Manual mode clutch of the AQD actuator can be activated by pressing the key (Standard version).



Plug-in connector

Actuator AQD has integrated connector for quick connection of control cable.

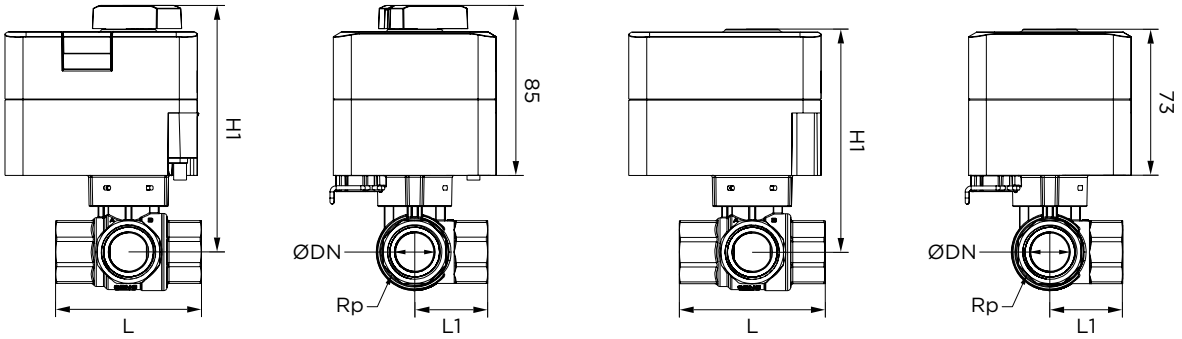
AUX switch

Actuators AQD have option of additional AUX switch for control of user up to 5 A, 230 V~.

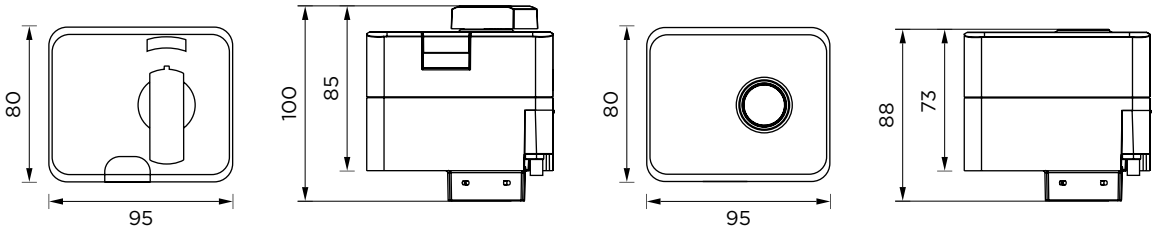
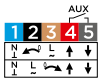
Selection of rotary direction

The cable cover should be removed to access the settings (2-point standard version).

Actuators with the BVQ3100 valves



Type	DN	Connection	L (mm)	L1 (mm)	H1 (mm)	H1 (mm) Basic
BVQ3115L	DN15	Rp 1/2 ”	72	36	119	107,5
BVQ3120L	DN20	Rp 3/4 ”	72	36	122	110,5
BVQ3125L	DN25	Rp 1 ”	82	41	126,5	115
BVQ3132L	DN32	Rp 1 ¼ ”	94	47	131,5	120

Technical specifications	AQD	AQDR	AQDRS	AQDY
Connection voltage	230 V~ or 24 V~			24 V~ or 24 V=
Own consumption	2,5÷5 W			
Auxiliary pump OFF switch	—	—	250 V~, 3 A	—
Degree of protection	IP 42			
Safety class	II for the voltage of 230 V~, III for the voltage of 24 V~/V=			
Applied standards	EN 60730-1, EN 60730-2-14			
Housing material	PC – dark grey			
Standard cable length	2 m			
Ambient temperature	0÷50 °C			
Storage temperature	-20÷75 °C			
Humidity	Max. 90 % RH, non-condensing			
Servicing	Maintenance-free			
Product weight	390÷860 g			
Dimensions				
Electrical connection				

AQD actuators are designed for operating 3-way BVQ3100 zone ball valves.
Actuators controlled by 2-point signal are recommended for diverting applications.
Valves can also be used in combination with other actuators from the AQD family, controlled by 3-point or modulating control signal.

Item		Order code	Description
AQD Basic - without led indication and manual control			
	Recommended for 3-way BVQ3100 zone ball valves DN15 - DN32	1AQD05215263	Actuator AQD Basic, 2P, 5 Nm, 15 s, 230 VAC, connector
		1AQD05230263	Actuator AQD Basic, 2P, 5 Nm, 30 s, 230 VAC, connector
		1AQD05215253	Actuator AQD Basic, 2P, 5 Nm, 15 s, 230 VAC, cable
		1AQD05230253	Actuator AQD Basic, 2P, 5 Nm, 30 s, 230 VAC, cable
AQD Standard - with led indication, manual control and cable			
	Recommended for 3-way BVQ3100 zone ball valves DN15 - DN32	1AQD05215223	Actuator AQD Standard, 2P, 5 Nm, 15 s, 230 VAC
		1AQD05230223	Actuator AQD Standard, 2P, 5 Nm, 30 s, 230 VAC
		1AQD05B30223	Actuator AQD Standard, 2P+S, 5 Nm, 30 s, 230 VAC
		1AQD05230423	Actuator AQD Standard, 2P, 5 Nm, 30 s, 24 VAC
		1AQD05B30423	Actuator AQD Standard, 2P+S, 5 Nm, 30 s, 24 VAC
	An alternative for 3-way BVQ3100 zone ball valves DN32	1AQD1021M223	Actuator AQD Standard, 2P, 10 Nm, 60 s, 230 VAC
		1AQD10B1M223	Actuator AQD Standard, 2P+S, 10 Nm, 60 s, 230 VAC

Actuators
AVD | AVDS | AVDR | AVDRS | AVDU | AVDUS | AVDY | AVDM

Presentation



AVD actuators are intended for position control of rotary mixing and ball valves. They are distinguished by robust construction and quiet operation. Innovative accessories provide a quick installation and removal, mostly without any tools. Turning direction, auxiliary switch activation and manual operations are indicated by means of LED lights.

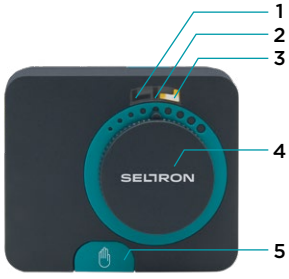
Typical application

- For controlling mixing valves in heating or cooling systems.
- Switchover between heating and cooling.
- Switchover between heating and domestic hot water heating.
- Switchover between various heat sources.
- Various other central heating devices.

Features

- Fits rotary mixing valves or ball valves complying with ISO 5211.
- The actuators feature four different installation positions on the valve.
- Resistant to mixing valve blockages.
- The installation and removal can be mostly completed without any tools.
- Adjustable auxiliary switch for activating the circulation pump in any actuator position.
- Operation indication with LED lights.
- An easy replacement of the power cord if damaged.
- A permanent clutch features a switchover between the automatic and manual operation modes. During a switchover, the actuator is switched off electrically.
- Option of adjusting the turning direction and operation functions, without interference with the actuator interior.
- Option of an adjustable auxiliary switch for activating the circulation pump in any actuator position.

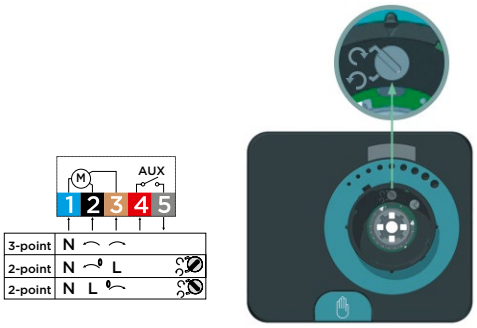
Description of settings buttons



1 – LED display – rotating the valve to left
2 – LED display – AUX switch is ON
3 – LED display – rotating the valve to right
4 – Button
5 – Manual operation clutch

Typical application	AVD	AVDS	AVDR	AVDRS	AVDU	AVDUS	AVDY	AVDM
For controlling mixing valves in heating or cooling systems	●	●	—	—	●	●	●	●
Switchover between heating and cooling	●	●	●	●	●	●	●	●
Switchover between heating and domestic hot water heating	●	●	●	●	●	●	●	●
Switchover between various heat sources	●	●	●	●	●	●	●	●
Various other central heating devices	●	●	●	●	●	●	●	●
Torque								
5 Nm	●	●	●	●	●	●	—	●
10 Nm	●	●	●	●	●	●	●	●
15 Nm	●	●	●	●	●	●	●	●
Operation mode								
Two-point	—	—	●	●	●	●	—	—
Three-point	●	●	—	—	●	●	—	—
Proportional 0(2)÷10 V or 0(4)÷20 mA	—	—	—	—	—	—	●	—
PWM control signal	—	—	—	—	—	—	●	—
ModBus	—	—	—	—	—	—	—	●
Pump ON switch								
Adjustable auxiliary switch for activating the circulation pump in any actuator position	—	●	—	●	—	●	—	—
Possible running speeds								
15 s/90 °	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	—	—
30 s/90 °	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	—	—
60 s/90 °	●	●	●	●	●	●	●	●
120 s/90 °	●	●	●	●	●	●	●	●
240 s/90 °	●	●	●	●	●	●	—	—
480 s/90 °	●	●	●	●	●	●	—	—
Power supply								
230 V~, 50 Hz	●	●	●	●	●	●	—	—
24 V~, 50 Hz	●	●	●	●	●	●	●	●
24 V=	—	—	—	—	—	—	●	●
Operation display								
Display of valve turning direction with LED lights	●	●	●	●	●	●	●	●
Valve position indication on the scale	●	●	●	●	●	●	●	●
Indication of the auxiliary (AUX) switch activation	—	●	—	●	—	—	—	—
Resistant to mixing valve blockages	●	●	●	●	●	●	●	●
Installation								
Can be installed on rotation or ball valves complying with ISO 5211	●	●	●	●	●	●	●	●
The installation and disassembly are screwless	●	●	●	●	●	●	●	●
The actuators feature four different installation positions	●	●	●	●	●	●	●	●
Connection cable fitted with a connector	●	●	●	●	●	●	●	●
Turning direction adjustment and operation functions, without interference with the actuator interior	●	●	●	●	●	●	●	●
A permanent clutch features a switchover between the automatic and manual operation modes. During a switchover, the actuator is switched off electrically	●	●	●	●	●	●	●	●

Outlined functions



Universal 2- or 3-point operation

The universal actuator version provides a 2- or 3-point operation. Based on the electrical connection the actuator provides a 2- or 3-point control.



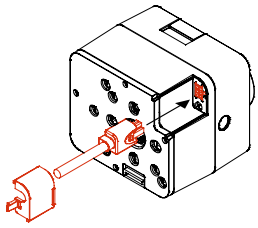
Manual mode clutch

Manual mode clutch of the AVD actuator can be activated by pressing the key. An activated clutch is indicated with a dimmed direction indication LED.



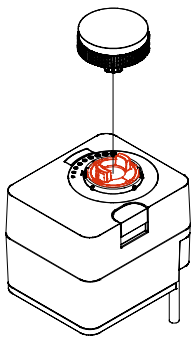
Quick installation

Innovative accessories and the installation system provide a quick installation and removal of the AVD actuator to/from the ball valve, mostly without any tools.



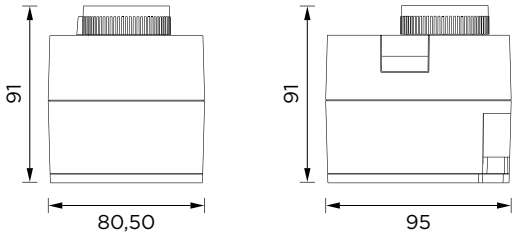
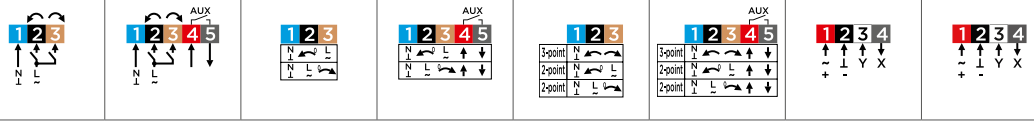
Plug-in connector

The AVD actuator with an integrated outlet in the housing for connector connection of the power cord. That provides a simple cable replacement in case of damage.



AUX switch

The AVD actuator features an extra switch for switching on loads up to 5 A, 230 V~. In order to configure an auxiliary switch, simply remove the manual turning button. The activation/deactivation point can be configured in any actuator position.

Technical specifications	AVD	AVDS	AVDR	AVDRS	AVDU	AVDUS	AVDY	AVDM
Connection voltage	230 V~ or 24 V~						24 V~ or 24 V=	
Own consumption	2,5÷5 W							
Auxiliary pump OFF switch	—	250 V~, 3 A	—	250 V~, 3 A	—	250 V~, 3 A	—	—
Degree of protection	IP 42							
Safety class	II for 230 V~ power supply, III for 24 V~/V= power supply							
Applied standards	EN 60730-1, EN 60730-2-14							
Housing material	PC – dark grey							
Standard cable length	2 m							
Operating temperature	0÷50 °C							
Storage temperature	-20÷75 °C							
Product weight	390÷860 g							
No. of pieces in the packaging unit	24 pcs							
Dimensions								
Electrical connection								

Item	Order code	Description
	1AVD0532M210-030	Actuator SELTRON AVD05, 3-point, 5 Nm, 2 min, 230 V~
	1AVD0512M210-030	Actuator SELTRON AVD05, universal 2- and 3-point, 5 Nm, 2 min, 230 V~
	1AVD05Y2M210-030	Actuator SELTRON AVD05Y, proportional, 5 Nm, 2 min, 24 V~/=
	1AVD15C2M210-030	Actuator SELTRON AVD15, 3-point, with an auxiliary switch, 15 Nm, 2 min, 230 V~
	1AVD15A2M210-030	Actuator SELTRON AVD15, universal 2- and 3-point, with an auxiliary switch, 15 Nm, 2 min, 230 V~
Accessories		
	1AVDMSA+NN0	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip (5 Nm)
	1AVDMSB+NN0	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip (10 Nm+)
	1AVDMSC+NN0	Afriso ARV series, Danfoss HFE series, Esbe 3F & 4F & T series
	1AVDMSD+NN0	Meibes new valve, Brv
	1AVDMSE+NN0	Landis & Gyr, Siemens – type VBI, type VBF
	1AVDMSF+NN0	Meibes old valve, Wita
	1AVDMSG+NN0	Esbe VRG series
	1AVDMSH+NN0	Brv 1060 & 1050 series, Herz MV3P & MV4P series, Womix MIX M
	1AVDMSI+NN0	Honeywell V544.., V543..
	1AVDMSJ+NN0	Paw K32, K33, K34
	1AVDMSK+NN0	Danfoss HRB, HRE
	1AVDMSL+NN0	Vexve AMV Series, ABV Series
	1AVDMST+NN0	Ball valve ISO 5211, flange F03, axis L/R 9 mm
	1AVDMSU+NN0	Ball valve ISO 5211, flange F04, axis L/R 9 mm
	1AVDMSV+NN0	Ball valve ISO 5211, flange F04, axis L/R 11 mm
	1AVDMSW+NN0	Ball valve ISO 5211, flange F05, axis L/R 11 mm

Actuators
AVC | AVC S | AVC R | AVC RS | AVC Y

Presentation



AVC actuators are intended for the control of rotary mixing and ball valves.

Typical application

- For controlling mixing valves in heating or cooling systems.
- Switchover between heating and cooling.
- Switchover between heating and domestic hot water heating.
- Switchover between various heat sources.
- In solar systems.
- In domestic hot water heating systems.
- Controls ventilation system elements.
- As a component in central heating devices.

Features

- Robust construction.
- Four possible installation positions.
- Actuator protection in case of mixing valve blockage.
- Signalisation of operation with LED technology.
- It can be installed on rotary mixing or ball valves.
- Possibility of a proportional control of mixing valves.
- Option of an adjustable auxiliary switch for activating the circulation pump in any actuator position.

Description of settings buttons



1 – Manual operation clutch.
2 – LED display – rotating the valve to left.
3 – LED display – AUX switch is ON.
4 – LED display – rotating the valve to right.
5 – Button.

Typical application	AVC	AVC S	AVC R	AVC RS	AVC Y
For controlling mixing valves in heating or cooling systems	●	●	—	—	—
Switchover between heating and cooling	—	—	●	●	—
Switchover between heating and domestic hot water heating	—	—	●	●	—
Switchover between various heat sources	—	—	●	●	—
In solar systems	—	—	●	●	—
In domestic hot water heating systems	●	●	●	●	—
Controls ventilation system elements	—	—	—	—	●
Various other central heating devices	●	●	●	●	●
Torque					
5 Nm	●	●	●	●	—
10 Nm	●	●	●	●	●
15 Nm	●	●	●	●	●
Operation mode					
Two-point	—	—	●	●	—
Three-point	●	●	—	—	—
Proportional	—	—	—	—	●
Pump OFF switch					
Adjustable auxiliary switch for activating/deactivating the circulation pump in any position	—	●	—	●	—
Possible running speeds					
15 s / 90°	●	●	—	—	●
30 s / 90°	●	●	●	●	●
60 s / 90°	●	●	●	●	●
120 s / 90°	●	●	●	●	●
240 s / 90°	●	●	●	●	—
480 s / 90°	●	●	●	●	●
Power supply					
230 V~, 50 Hz	●	●	●	●	—
24 V~, 50 Hz	●	●	●	●	—
24 V~ / 24 V=	—	—	—	—	●
Possible variants of the manual turning lever					
Button	●	●	●	●	●
Lever	●	●	●	●	●
Only valve position indicator	●	●	●	●	●
Protection					
Actuator protection in case of mixing valve blockage	●	●	●	●	●
Operation display					
LED display of the mixing valve turning direction	●	●	●	●	●

Outlined functions



Signalisation of operation

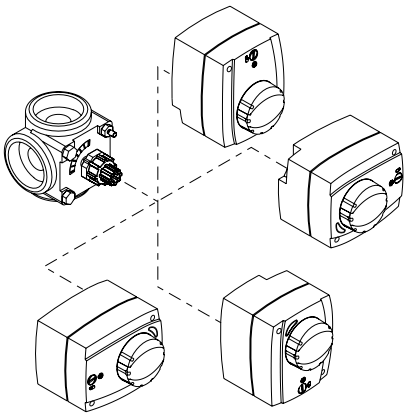
The signalisation of operation with LEDs on the actuator shows the direction in which the mixing valve is moving. The user always has an overview whether the actuator is stationary or moving.



Manual mode clutch

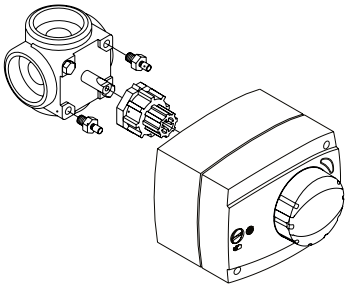
When the button is in the position, the actuator operates automatically.

When the button is in the position, the valve position can be set with a button or the manual turning lever.



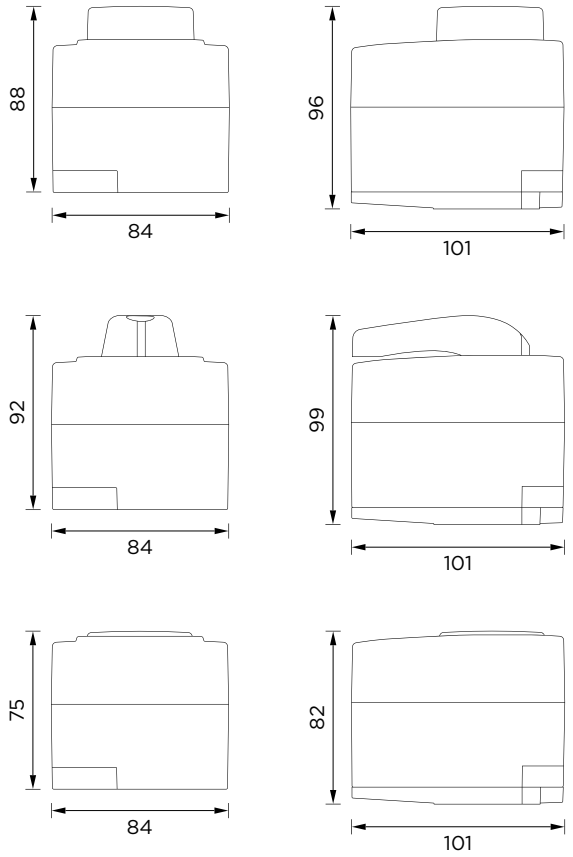
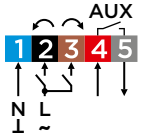
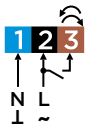
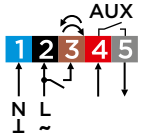
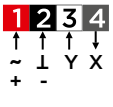
Four possible installation positions

The AVC actuator can be installed on the mixing valve in four positions (upper, lower, left, right).



Direct installation onto more than 20 different valves

The actuators are available with suitable accessories, which enable direct installation onto more than 20 mixing valves of different manufacturers.

Technical specifications	AVC	AVC S	AVC R	AVC RS	AVC Y
Connection voltage	230 V~ or 24 V~				
Own consumption	<5 W				
Auxiliary pump OFF switch	230 V~, 3 A				
Degree of protection	IP42				
Safety class	II for the voltage of 230 V~ III for the voltage of 24 V~				
Housing material	PC – dark grey				
Standard cable length	2 m				
Operating temperature	0÷50 °C				
Storage temperature	-20÷75 °C				
Product weight	390÷860 g				
No. of pieces in the packaging unit	24 pcs				
Dimensions					
Electrical connection					

Item	Order code	Description
	**Three-point actuator AVC**	
	1AVC0532M210-030	Actuator SELTRON AVC05, 3-point, 5 Nm, 2 min, 230 V~
	Three-point actuator AVC S – with an end-limit switch	
	1AVC05C2M210-030	Actuator SELTRON AVC05S, 3-point, with a switch, 5 Nm, 2 min, 230 V~
	1AVC15C2M220-030	Actuator SELTRON AVC15S, 3-point, with a switch, 15 Nm, 2 min, 230 V~
	Two-point actuator AVC R	
	1AVC0521M210-030	Actuator SELTRON AVC05R, 2-point, 5 Nm, 1 min, 230 V~
	Two-point actuator AVC RS – with an end-limit switch	
	1AVC05B1M210-030	Actuator SELTRON AVC05RS, 2-point, with a switch, 5 Nm, 1 min, 230 V~
	1AVC15B1M220-030	Actuator SELTRON AVC15RS, 2-point, with a switch, 15 Nm, 1 min, 230 V~
	Proportional actuator AVC 10Y	
	1AVC10Y1M510-030	Actuator SELTRON AVC10Y, proportional, 10 Nm, 1 min, 24 V~
Accessories		
	1ASCAVMSA000+NN0	Seltron, Acaso, Brv, Esbe, Hora, Imit, Imp, Ivar, Paw, Somatherm, Wip (5Nm) (basic version for AVC05)
	1ASCAVMSB000+NN0	Seltron, Acaso, Brv, Esbe, Hora, Imit, Imp, Ivar, Paw, Somatherm, Wip (10Nm+) (basic version for AVC10 and AVC15)
	1ASCAVMSC000+NN0	Centra – type DR/ZR
	1ASCAVMSD000+NN0	Centra – type DRU
	1ASCAVMSE000+NN0	Landis & Gyr, Siemens – type VBI, VBF
	1ASCAVMSF000+NN0	Meibes, Wita
	1ASCAVMSG000+NN0	Esbe VRG
	1ASCAVMSH000+NN0	Firšt
	1ASCAVMSI000-NN0	Honeywell – type V5442.., type V5433..
	1ASCAVMSJ000-NN0	Paw K32, K33, K34
	1ASCAVMSK000+NN0	Danfoss HRB3
	1ASCAVMSM000-NN0	Ball valve ISO5211, F03, L (9 mm)
	1ASCAVMSN000-NN0	Ball valve ISO5211, F03, L (11 mm)
	1ASCAVMSO000-NN0	Ball valve Belimo R2..xx-S.., F04, L (10 mm)

Actuators with mixing valves
AVC + 3 W or 4 W

Presentation



Typical application

- In various heating and cooling systems.
- Switchover from a solid fuel boiler to an oil boiler.
- Switchover from a solid fuel boiler to a gas boiler.
- Switchover of the storage tank to an oil boiler.
- Switchover of the storage tank to a gas boiler.
- Switchover between a solid fuel boiler and a solar system (domestic hot water heating).
- Switchover of the heat pump and the solar system (domestic hot water heating).
- Switchover between heating and domestic hot water heating.
- Switchover of the collectors east/west.
- Switchover of the domestic hot water storage tank to the storage tank (solar system).
- Switchover of the domestic hot water storage tank to the pool (solar system).
- Switchover between two heat exchangers.

Features

- Minimum resistance or flow reduction.
- Suitable for use in residential and commercial systems.
- Suitable for use in heating systems as well as in domestic hot water systems.
- An extremely easy and quick installation.
- Turning direction indicator.
- Valve position indication.
- Integrated permanent clutch for the manual mode.
- In the case of a blocked valve, the actuator is not damaged.

Description of settings buttons



1 – Manual operation clutch.
2 – LED display – rotating the valve to left.
3 – LED display – AUX switch is ON.
4 – LED display – rotating the valve to right.
5 – Button.

Typical application	AVC + mixing valve 3 W	AVC + mixing valve 4 W
In various heating or cooling systems	●	●
Switchover from a solid fuel boiler to an oil boiler	●	–
Switchover from a solid fuel boiler to a gas boiler	●	–
Switchover of the storage tank to an oil boiler	●	–
Switchover of the storage tank to a gas boiler	●	–
Switchover between a solid fuel boiler and a solar system (domestic hot water heating)	●	–
Switchover of the heat pump and the solar system (domestic hot water heating)	●	–
Switchover between heating and domestic hot water heating	●	–
Switchover of the collectors east/west	●	–
Switchover of the domestic hot water storage tank to the storage tank (solar system)	●	–
Switchover of the domestic hot water storage tank to the pool (solar system)	●	–
Switchover between two heat exchangers	●	–

Outlined functions



Signalisation of operation

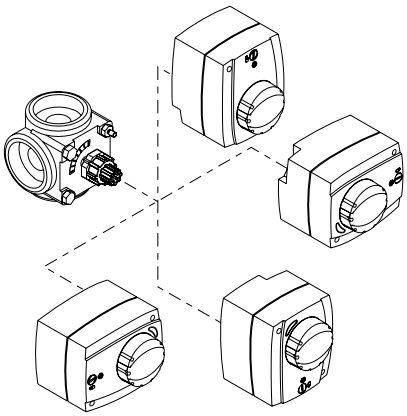
The signalisation of operation with LEDs on the actuator shows the direction in which the mixing valve is moving. The user always has an overview whether the actuator is stationary or moving.



Manual mode clutch

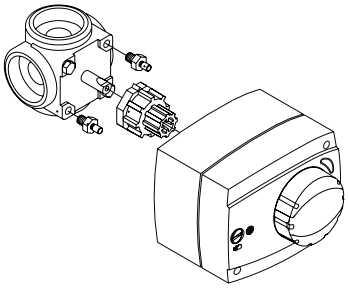
When the button is in the position, the actuator operates automatically.

When the button is in the position, the valve position can be set with a button or the manual turning lever.



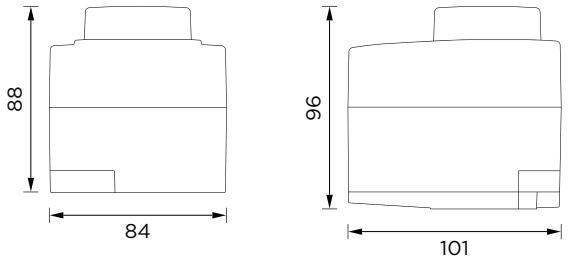
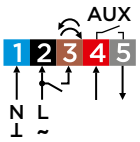
Four possible installation positions

The AVC actuator can be installed on the mixing valve in four positions (upper, lower, left, right).



Direct installation onto more than 20 different valves

The actuators are available with suitable accessories, which enable direct installation onto more than 20 mixing valves of different manufacturers.

Technical specifications	AVC RS
Connection voltage	230 V~ or 24 V~
Own consumption	< 5 W
Auxiliary pump OFF switch	250 V~, 3 A
Degree of protection	IP 42
Safety class	II for the voltage of 230 V~ III for the voltage of 24 V~
Housing material	PC – dark grey
Standard cable length	2 m
Operating temperature	0÷50 °C
Storage temperature	-20÷75 °C
Product weight	390÷860 g
No. of pieces in the packaging unit	12 pcs
Dimensions	
Electrical connection	

Technical specifications	Mixing valve 3 W	Mixing valve 4 W
Operation mode	3 W	4 W
Maximum operating pressure	10 bar	
Maximum operating temperature	110 °C	
Running angle	90 °	
Body	Brass	
Stem	Brass	
Cover	Brass	
Stem seat	Brass	

Item	Order code	Description
		**Three-point actuator AVC05 + mixing valve – set**
	7AVC053V3342-030	Actuator SELTRON AVC05 (5 Nm, 2 min, 230 V~) + MV 3W 3/4" KV 6.3
	7AVC053V3013-030	Actuator SELTRON AVC05 (5 Nm, 2 min, 230 V~) + MV 3W 1" KV 8
	7AVC053V3544-030	Actuator SELTRON AVC05 (5 Nm, 2 min, 230 V~) + MV 3W 5/4" KV 12
	7AVC053V4342-030	Actuator SELTRON AVC05 (5 Nm, 2 min, 230 V~) + MV 4W 3/4" KV 6.3
	7AVC053V4013-030	Actuator SELTRON AVC05 (5 Nm, 2 min, 230 V~) + MV 4W 1" KV 8
	7AVC053V4544-030	Actuator SELTRON AVC05 (5 Nm, 2 min, 230 V~) + MV 4W 5/4" KV 12

Actuators with ball valves
AVC + 2 W or 3 W

Presentation



Typical application

- Switchover from a solid fuel boiler to an oil boiler.
- Switchover from a solid fuel boiler to a gas boiler.
- Switchover of the storage tank to an oil boiler.
- Switchover of the storage tank to a gas boiler.
- Switchover between a solid fuel boiler and a solar system (domestic hot water heating).
- Switchover between an oil boiler and a solar system (domestic hot water heating).
- Switchover of the heat pump and the solar system (domestic hot water heating).
- Switchover between heating and domestic hot water heating.
- Switchover of the collectors east/west.
- Switchover of the domestic hot water storage tank to the storage tank (solar system).
- Switchover of the domestic hot water storage tank to the pool (solar system).
- Switchover between two heat exchangers.
- ON/OFF zone control of heating systems.
- As a blocking element for heating systems.
- As a blocking element for domestic hot water systems.
- As a blocking element for cooling systems.
- As a blocking element in processing industry and agriculture.

Features

- Minimum resistance or flow reduction.
- Suitable for use in residential and commercial systems.
- Suitable for use in heating systems as well as in domestic hot water systems.
- An extremely easy and quick installation.
- Turning direction indicator.
- Valve position indication.
- Integrated permanent clutch for the manual mode.
- In the case of a blocked valve, the actuator is not damaged.
- Perfect sealing.

Description of settings buttons



1 – Manual operation clutch.
2 – LED display – rotating the valve to left.
3 – LED display – AUX switch is ON.
4 – LED display – rotating the valve to right.
5 – Handle.

Typical application	AVC RS + ball valve 2 W	AVC RS + ball valve 3 W
Switchover from a solid fuel boiler to an oil boiler	–	●
Switchover from a solid fuel boiler to a gas boiler	–	●
Switchover of the storage tank to an oil boiler	–	●
Switchover of the storage tank to a gas boiler	–	●
Switchover between a solid fuel boiler and a solar system (domestic hot water heating)	–	●
Switchover between an oil boiler and a solar system (domestic hot water heating)	–	●
Switchover of the heat pump and the solar system (domestic hot water heating)	–	●
Switchover between heating and domestic hot water heating	–	●
Switchover of the collectors east/west	–	●
Switchover of the domestic hot water storage tank to the storage tank (solar system)	–	●
Switchover of the domestic hot water storage tank to the pool (solar system)	–	●
Switchover between two heat exchangers	–	●
ON/OFF zone control of systems	●	–
As a blocking element for heating systems	●	–
As a blocking element for domestic hot water systems	●	–
As a blocking element for cooling systems	●	–
As a blocking element in processing industry and agriculture	●	–

Outlined functions



Signalisation of operation

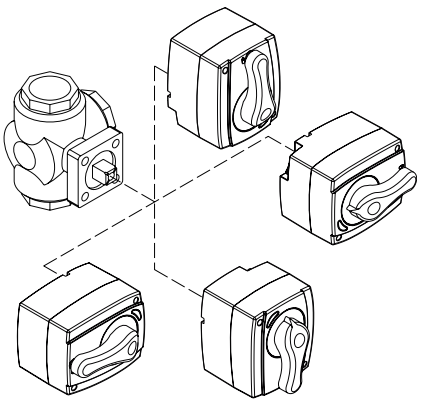
The signalisation of operation with LEDs on the actuator shows the direction in which the mixing valve is moving. The user always has an overview whether the actuator is stationary or moving.



Manual mode clutch

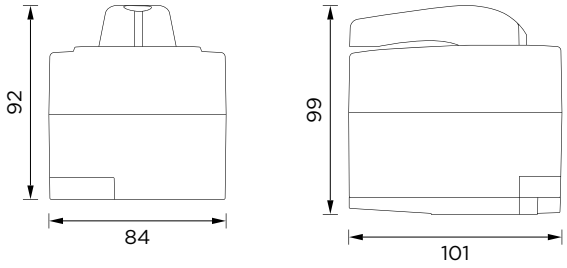
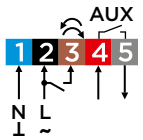
When the button is in the position, the actuator operates automatically.

When the button is in the position, the valve position can be set with a button or the manual turning lever.



Four possible installation positions

The AVC actuator can be installed on the ball valve in four positions (up, down, left, right).

Technical specifications	AVC RS
Connection voltage	230 V~ or 24 V~
Own consumption	< 5 W
Standby consumption	< 0.25 W
Auxiliary pump OFF switch	250 V~, 3 A
Degree of protection	IP 42
Safety class	II for the voltage of 230 V~ III for the voltage of 24 V~
Housing material	PC – dark grey
Standard cable length	2 m
Operating temperature	0÷50 °C
Storage temperature	-20÷75 °C
Product weight	390÷860 g
No. of pieces in the packaging unit	12 pcs
Dimensions	
Electrical connection	

Technical specifications	Ball valve 2 W	Ball valve 3 W
Operation mode	2 W	3 W
Operating temperature	-20÷110 °C	
Running angle	90 °	
Dimensions	1/2", 3/4", 1", 5/4"	1/2", 3/4", 1"

Item	Order code	Description
		**Two-point actuator AVC05RS – with an end-limit switch + switchover ball valve – set**
	1AVC05B3022315-0	Actuator SELTRON AVC05RS, 30 s, 230 V~ + 3 W ball valve 1/2"
	1AVC10B1M22320-0	Actuator SELTRON AVC10RS, 1 min, 230 V~ + 3 W ball valve 3/4"
	1AVC15B1M22325-0	Actuator SELTRON AVC15RS, 1 min, 230 V~ + 3 W ball valve 1"
		**Two-point actuator AVC05RS – with an end-limit switch + ball valve – set**
	1AVC05B3022215-0	Actuator SELTRON AVC05RS, 30 s, 230 V~ + 2 W ball valve 1/2"
	1AVC05B3022220-0	Actuator SELTRON AVC05RS, 30 s, 230 V~ + 2 W ball valve 3/4"
	1AVC10B1M22225-0	Actuator SELTRON AVC10RS, 1 min, 230 V~ + 2 W ball valve 1"
	1AVC15B1M22232-0	Actuator SELTRON AVC15RS, 1 min, 230 V~ + 2 W ball valve 5/4"

3-way ball valves, internal thread, ISO 5211 connection for actuator
VBI-310

Presentation



Typical application

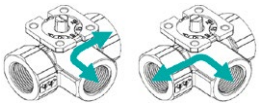
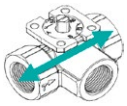
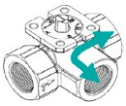
- For domestic and commercial heating and cooling hydronic applications, in closed systems.

Features

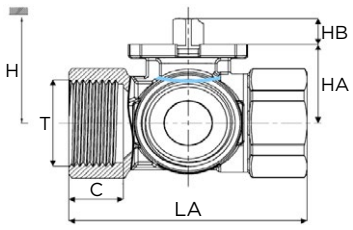
- With "L" or "T" ball type, for diverting and change over aplications.
- Dezincification-resistant (DZR) brass.
- Blow-out proof system.
- Low operating torque.

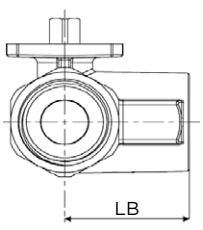
Technical specifications

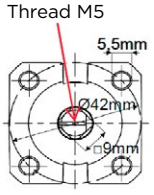
Connection for actuator	ISO 5211 F04-9 mm
Pipe connections	Rp internal thread ISO 7-1
Nominal presure	PN40
Operating pressure	Max. 16 bar, operating pressure and fluid temperature per ISO 7005
Max. diff. pressure	4 bar
Fluid temperature	-10 °C to +130 °C
Fluid	Water, water with glycol up to 50 % vol. The water quality requirements specified in VDI 2035 must be adhered to.
Max. Leakage	EN 60534-4 L/1, improved class 4, bypass < 1 %
Angle of rotation	90 °
Servicing	Maintenance-free
Installation position	Upright to horizontal (related to stem)
Materials	Body-CW602N DZR brass; sealing-PTFE, EPDM Perox

Valve version	"L" ball	"T" ball	"T" ball
			
DN	Kvs (m^3/h)	Kvs (m^3/h)	Kvs (m^3/h)
DN15	5	12	6
DN20	9	16	8
DN25	9	16	8
DN32	13	25	12,5
DN40	25	49	24,5
DN50	37	73	36,5

Dimensions									Weight (g)	
DN	T	LA(mm)	LB(mm)	C(mm)	HA(mm)	HB(mm)	ISO Q (mm)	H(mm) *	"L"	"T"
15	Rp 1/2 "	66	34	15,5	28	9	F04-9	230	315	310
20	Rp 3/4 "	80	40	16,5	30	9	F04-9	235	418	405
25	Rp 1 "	85	45	19,5	30	9	F04-9	235	646	633
32	Rp 1 ¼ "	100	52	21,5	34	9	F04-9	240	976	958
40	Rp 1 ½ "	110	57	21,5	40	9	F04-9	245	1427	1387
50	Rp 2 "	132	69	25	53	9	F04-9	250	2388	2298



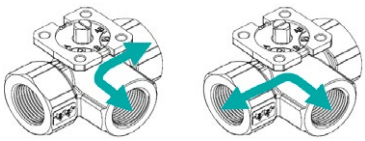




*Total height with actuator plus minimum mounting distance to wall, ceiling.

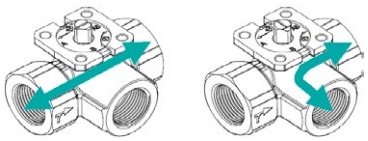
Working way

Version with "L" ball

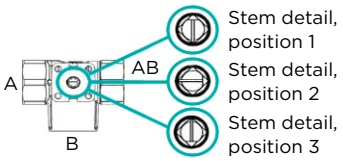


Position 1 Position 2

Version with "T" ball



Position 2 Position 3



Item	Order code	Description
Valves with "L" ball		
	VBI3115L	Valve VBI3115L, DN15, Rp 1/2 ", Ball type L
	VBI3120L	Valve VBI3120L, DN20, Rp 3/4 ", Ball type L
	VBI3125L	Valve VBI3125L, DN25, Rp 1 ", Ball type L
	VBI3132L	Valve VBI3132L, DN32, Rp 1 ¼ ", Ball type L
	VBI3140L	Valve VBI3140L, DN40, Rp 1 ½ ", Ball type L
	VBI3150L	Valve VBI3150L, DN50, Rp 2 ", Ball type L
Valves with "T" ball		
	VBI3115T	Valve VBI3115T, DN15, Rp 1/2 ", Ball type T
	VBI3120T	Valve VBI3120T, DN20, Rp 3/4 ", Ball type T
	VBI3125T	Valve VBI3125T, DN25, Rp 1 ", Ball type T
	VBI3132T	Valve VBI3132T, DN32, Rp 1 ¼ ", Ball type T
	VBI3140T	Valve VBI3140T, DN40, Rp 1 ½ ", Ball type T
	VBI3150T	Valve VBI3150T, DN50, Rp 2 ", Ball type T
Suitable Seltron AVCR actuators		
 For valves DN15 - DN25 VBI-310L/T	AVC05230220	Actuator AVCR, 2P, 5 Nm, 30 s, 230 VAC
	AVC05B30220	Actuator AVCR, 2P+S, 5 Nm, 30 s, 230 VAC
	AVC05230420	Actuator AVCR, 2P, 5 Nm, 30 s, 24 VAC
	AVC05B30420	Actuator AVCR, 2P+S, 5 Nm, 30 s, 24 VAC
For valves DN32 - DN50 VBI-310L/T	AVC1021M220	Actuator AVCR, 2P, 10 Nm, 60 s, 230 VAC
	AVC10B1M220	Actuator AVCR, 2P+S, 10 Nm, 60 s, 230 VAC
	AVC1021M420	Actuator AVCR, 2P, 10 Nm, 60 s, 24 VAC
	AVC10B1M420	Actuator AVCR, 2P+S, 10 Nm, 60 s, 24 VAC
Suitable Seltron AVDR actuators		
 For valves DN15 - DN25 VBI-310L/T	AVD05230220	Actuator AVDR, 2P, 5 Nm, 30 s, 230 VAC
	AVD05B30220	Actuator AVDR, 2P+S, 5 Nm, 30 s, 230 VAC
	AVD05230420	Actuator AVDR, 2P, 5 Nm, 30 s, 24 VAC
	AVD05B30420	Actuator AVDR, 2P+S, 5 Nm, 30 s, 24 VAC
For valves DN32 - DN50 VBI-310L/T	AVD1021M220	Actuator AVDR, 2P, 10 Nm, 60 s, 230 VAC
	AVD10B1M220	Actuator AVDR, 2P+S, 10 Nm, 60 s, 230 VAC
	AVD1021M420	Actuator AVDR, 2P, 10 Nm, 60 s, 24 VAC
	AVD10B1M420	Actuator AVDR, 2P+S, 10 Nm, 60 s, 24 VAC

Digital room unit
RCD20

Presentation



Digital room unit RCD20 is used to control the room temperature in connection with the SELTRON heating controllers.
It is characterized by a minimalistic design and a simple user interface with a large illuminated display and large keyboard.

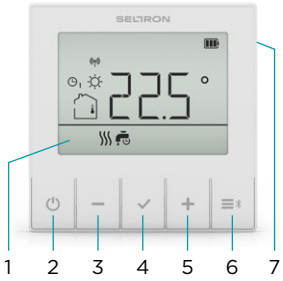
Typical application

- In domestic buildings for setting and monitoring of the requested room temperature in connection with SELTRON controllers WDC, WXD, KXD and AHD.

Features

- Easy and comfortable setting with the use of a smart device (phone).
- Powered by a battery that can be recharged via USB-C connector (wireless version only).
- User functions PARTY, ECO, HOLIDAYS, FIREPLACE and one-time activation of DHW.
- Measurement of relative humidity in the room (depending on the model).
- Measurement of the air quality in the room (option).

Appearance



1 - Illuminated LED display.
2 - Button to turn operation ON/OFF.
3 - Button for reducing or move backward.
4 - Button for overview of information and menu entering.
5 - Button for increasing or move forward.
6 - Button to turn ON/OFF user functions or connecting with smart device.
7 - Button (antenna) for wireless pairing with controller.

Technical characteristics	RCD20	RCD20W
Max. number of room units on heating controller WXD, WDC, KXD, KUD, KPD	2	2
Max. number of room units on compact weather compensated controller CMP, AHC, AHD	1	1
Wired connection with controller	●	—
Wireless connection with controller	—	●
Option of connecting an auxiliary sensor	●	—
User functions		
PARTY function – activation of comfort operation mode	●	●
ECO function – activation of economy operation mode	●	●
HOLIDAY function – activation of operation for longer period (holidays)	●	●
FIREPLACE function – activation of operation with parallel heating (with FIREPLACE)	●	●
DHW function – one-time DHW heating	●	●
Data display		
Display of actual measured and set temperature	●	●
Display of relative humidity	—	—
Display of temperatures, measures on controller	●	●
Display of battery status and need for recharge	—	●
Display of outdoor temperature	●	●
Display of screed temperature	●	●
Setup and installation		
Wall installation	●	●

Outlined functions

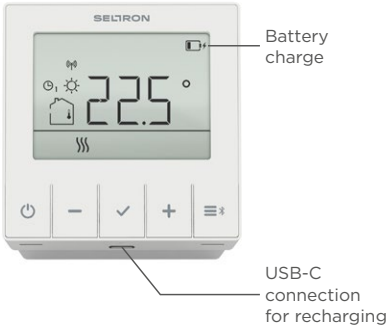


Selection of the operation mode

You can easily and quickly select or change the operation mode on the room unit.

By pressing the button you can switch between heating and DHW, only heating or only heating of DHW or switch OFF of the heating system.

With a long press of the button, you may change the working mode from heating to cooling.



Powered by a rechargeable battery

The wireless model of the RCD20 room unit is powered by a rechargeable battery. Discharged battery can be charged with any charger that has USB-C connector. This saves on the cost of annual battery replacement and avoids potential damage to the unit in case of battery spill.

The connection for charging the battery is located on the bottom part of the housing.



Room unit has many user functions available with which the user can adjust the operation to his needs at any time. By pressing the button, you can select between available user functions.

PARTY function

PARTY is a function that turns ON the heating or cooling to a comfortable temperature outside the set time program.
The temperature and duration of the function can be set as required.

ECO function

ECO is a function for switching the heating or cooling to an economical temperature in case of short absence.
The temperature and duration of the function can be set as required.

HOLIDAY function

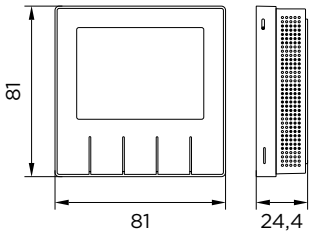
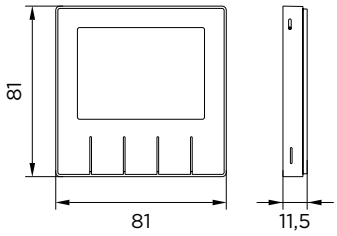
HOLIDAY is a function for switching the heating or cooling to the holiday temperature in the event of a long absence.
The temperature and duration of the function can be set as required.

FIREPLACE function

FIREPLACE function temporary disables the influence of the room temperature. When the FIREPLACE function is activated, the heating continues to operate on the basis of outdoor temperature.

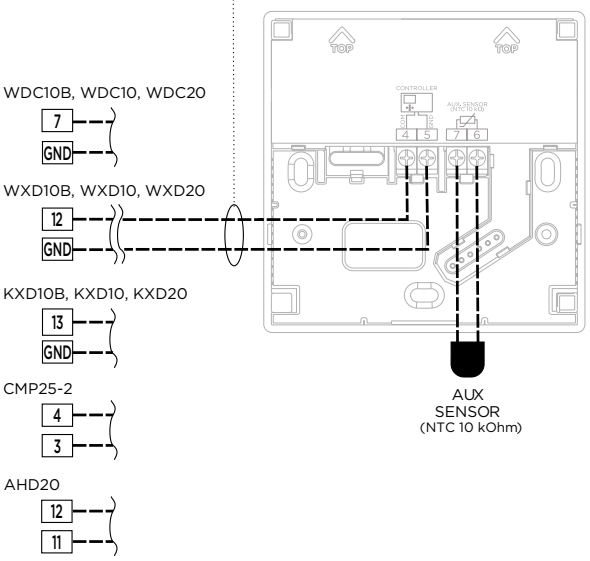
DHW function

This function enables one-time activation of DHW warming at any time. The function automatically switches OFF when the requested DHW temperature is reached or after one hour after the activation.

Technical specification	RCD20	RCD20W
Wall installation or onto a flush socket	•	
Communication	Modbus, wired connection	Wireless connection, 2.4 GHz
Power supply	12 V DC, bus line	LiPo battery, 3.7V, 1000 mAH
Own consumption	< 0,02 W	
Clock accuracy	+/- 1 s (24 h) at 20 °C	
Degree of protection	IP 20 according to SIST EN 60529	
Safety class	III according to SIST EN 60730-1	
Type of temperature sensors	RTD Murata NTC (10 kE)	
Housing material	PC+ABS thermoplastic	
Permissible ambient temperature	0÷40 °C	
Storage temperature	-20÷65 °C	
Product weight	115 g	95 g
Packing unit	24 pcs	
Dimensions		

Electrical connection

	≥	≤
	0,25 mm²	0,75 mm²
	0,25 mm²	0,5 mm²
	0,25 mm²	0,5 mm²



Item	Order code	Description
		
	1RBD30F-060	Room unit SELTRON RCD20, wired connection, surfaces-mounting
	1RBD30WF-060	Room unit SELTRON RCD20W, wireless connection, surfaces-mounting

Older version of room unit RCD		NEW model of room unit RCD	
	**RCD1** Room unit (corrector) for heating controller **RCD2** Room unit for heating controller		**RCD20** Room unit for heating controller

Digital room unit
RCD40

Presentation



Digital room unit RCD40 is used to control the room temperature in connection with the SELTRON zone controllers.
It is characterized by a minimalistic design and a simple user interface with a large illuminated display and large keyboard.

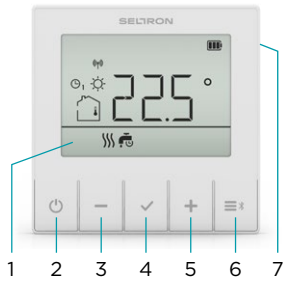
Typical application

- In systems with zone control for setting and monitoring of requested zone temperature in connection with zone controller ZCE.

Features

- Easy and comfortable setting with the use of a smart device (phone).
- Powered by a battery that can be recharged via USB-C connector (wireless version only).
- User functions PARTY, ECO, HOLIDAYS, FIREPLACE.
- Measurement of relative humidity in the room (option).
- Measurement of the air quality in the room (option).

Appearance



1 - Illuminated LED display.
2 - Button to turn operation ON/OFF.
3 - Button for reducing or move backward.
4 - Button for overview of information and menu entering.
5 - Button for increasing or move forward.
6 - Button to turn ON/OFF user functions or connecting with smart device.
7 - Button (antenna) for wireless pairing with controller.

Technical characteristics	RCD40	RCD40W
Max. number of room units on zone controller ZCE	6	6
Wired connection with controller	●	—
Wireless connection with controller	—	●
Option of connecting an auxiliary sensor	●	—
System control (together with one of the heating controllers)		
Floor heating system	●	●
Convector heating system	●	●
Wall and ceiling heating systems	●	●
User functions		
PARTY function – activation of comfort operation mode	●	●
ECO function – activation of economy operation mode	●	●
HOLIDAY function – activation of operation for longer period (holidays)	●	●
FIREPLACE function – activation of operation with parallel heating (with FIREPLACE)	●	●
Data display		
Display of actual measured and set temperature	●	●
Display of relative humidity	—	—
Display of temperatures, measures on controller	●	●
Display of battery status and need for recharge	—	●
Display of outdoor temperature	●	●
Display of screed temperature	●	●
Zone status display	●	●
Setup and installation		
Wall installation or installation into a flush mounted socket	●	●

Outlined functions

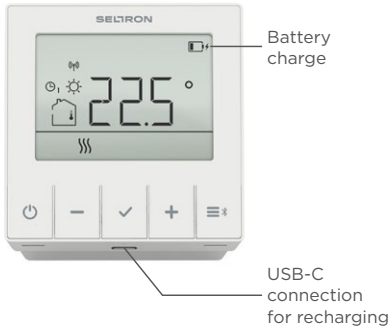


Selection of the operation mode

You can easily and quickly select or change the operation mode on the room unit.

By pressing the button ⏻ you can switch between operation ON and OFF.

With a long press of the button ⏻, you may change the working mode from heating to cooling.



Powered by a rechargeable battery

The wireless model of the RCD40 room unit is powered by a rechargeable battery. Discharged battery can be charged with any charger that has USB-C connector. This saves on the cost of annual battery replacement and avoids potential damage to the unit in case of battery spill.

The connection for charging the battery is located on the bottom part of the housing.



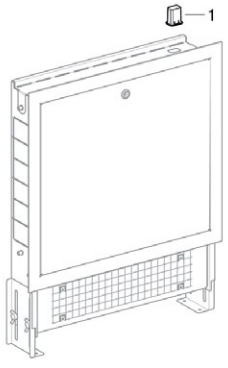
Room unit has many user functions available with which the user can adjust the operation to his needs at any time. By pressing the button ☰, you can select between available user functions.

- **PARTY function**
- **ECO function**
- **HOLIDAY function**
- **FIREPLACE function**
- **DHW function**



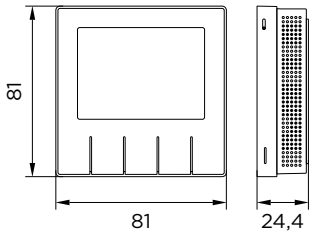
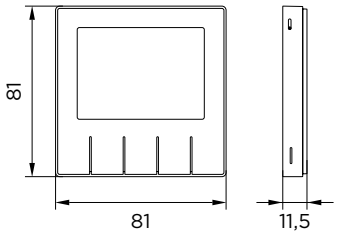
Option of selecting the master room unit for the central control of all six temperature zones.

When defining the first room unit as the “MASTER” unit, the setup can be carried out only at one room unit whereas these apply to all other slave room units. That way we avoid a painstaking configuration of identical settings on several room units. The ZCE zone controller provides three autonomy levels of slave room units. The setting we select depends on the freedom we want to leave to the user in controlling individual zones.



Solution for a smooth communication signal flow between the room unit and the controller

Communication with wireless room units is often difficult due to the fact that the junction boxes are flush-mounted and made of metal sheet that prevents a smooth flow of the radio signal. For the ZCE controller, we enabled the installation of the transmitter outside the junction box housing. This ensured a smooth communication between the controller and wireless room units.

Technical specification	RCD40	RCD40W
Wall installation or onto a flush socket	•	
Communication	Modbus, wired connection	Wireless connection, 2.4 GHz
Power supply	12 V DC, bus line	LiPo battery, 3.7V, 1000 mAH
Own consumption	< 0,02 W	
Clock accuracy	+/- 1 s (24 h) at 20 °C	
Degree of protection	IP 20 according to SIST EN 60529	
Safety class	III according to SIST EN 60730-1	
Type of temperature sensors	RTD Murata NTC (10 kE)	
Housing material	PC+ABS thermoplastic	
Permissible ambient temperature	0÷40 °C	
Storage temperature	-20÷65 °C	
Product weight	115 g	95 g
Packing unit	24 pcs	
Dimensions		

Item	Order code	Description
	1RBD30FZ-06	Room unit SELTRON RCD40, wired connection, surfaces-mounting
	1RBD30WFZ-060	Room unit SELTRON RCD40W, wireless connection, surfaces-mounting

Older version of room unit RCD		NEW model of room unit RCD	
	**RCD3** Room unit (corrector) for zone controller **RCD4** Room unit for zone controller		**RCD40** Room unit for zone controller

Digital room thermostats
RT1B | RT1M | RT2M | WT1B | WT1M | WT2M

Presentation



Digital room thermostats RT and WT are used to regulate room temperature in apartments, houses or for zone temperature control in large premises. Some main features are minimalistic design and a simple user interface with a large backlit display and a clear large keyboard. The model range offers the possibility of installation into a wall socket or directly on the wall.

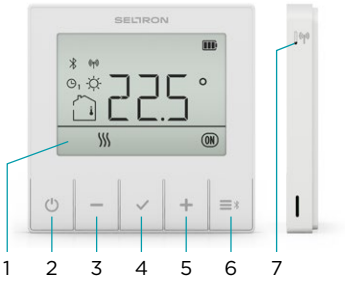
Typical applications

- Room thermostat regulates the room temperature by controlling (ON/OFF) the energy source, circulation pump or the supply valve.
- Thermostat can be used for radiator, fan coil or surface heating or cooling systems (*in case of low-temperature system, it is necessary to ensure regulation or limitation of supply temperature).

Features

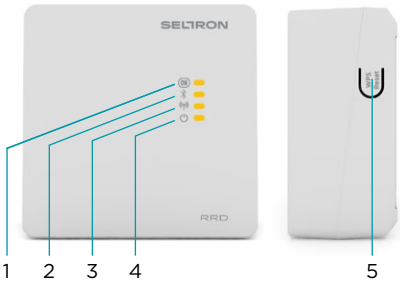
- Intuitive and comfort control with smart device.
- Integrated battery which allows recharging via USB-C port.
- Quick user functions PARTY, ECO, HOLIDAY and VENTILATION.
- Measurement of humidity and air quality (option).

Description of thermostat



1 - Illuminated display.
2 - ON/OFF button.
3 - Button for value decrease or step backward.
4 - Button for view of the data or menu entering.
5 - Button for value increase or step forward.
6 - Button to turn ON/OFF user functions or connection with smart device.
7 - Button (antenna) for connection with receiver.

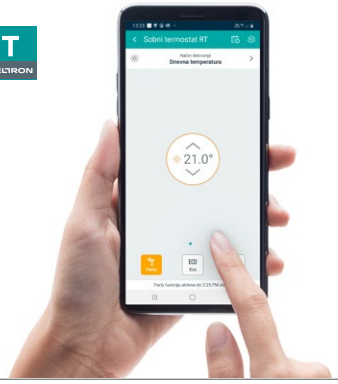
Description of receiver



1 - LED light (ON) to indicate the status of relay output.
2 - LED light to show connection with smart device.
3 - LED light to indicate the connection with thermostat.
4 - LED light to show working mode.
5 - Button for manual operation / connection / reset.

Power supply and installation	RT1B	RT1M	RT2M	WT1B	WT1M	WT2M
Battery powered	●	—	—	●	—	—
Mains powered	—	●	●	—	●	●
Wall mounting	●	●	—	●	●	—
Mounting into wall box	—	—	●	—	—	●
Technical characteristics						
Wireless thermostat	—	—	—	●	●	●
Relay output	●	●	●	●	●	●
Possibility of additional sensor connection	●	●	●	—	●	●
Usage						
Systems with Radiators	●	●	●	●	●	●
Systems with Fan coils	●	●	●	●	●	●
*Surface H/C (floor, wall, ceiling)	●	●	●	●	●	●
** It is necessary to ensure regulation or limitation of supply temperature.*						
User functions						
Function PARTY – activation of comfort temperature	●	●	●	●	●	●
Function ECO – activation of saving temperature	●	●	●	●	●	●
Function HOLIDAY – activation of saving temperature in absence	●	●	●	●	●	●
Function VENTILATION – activation of saving temperature during ventilation	●	●	●	●	●	●
Safety functions						
Frost protection	●	●	●	●	●	●
Protection against overheating of rooms	●	●	●	●	●	●
Limitation of maximum screed or wall heating (extra sensor needed)	●	●	●	●	●	●

Outlined functions



Setting with use of smart device and Bluetooth connection

Room thermostat can also be set with the use of smart device and Clausius BT application. Application allows easy setting of desired temperature, user functions, time programs, parameter. It can also be used for status overview, software updated and many other settings.

The application is available for smartphones with Android or iOS. The connection of the thermostat to the smart device is direct, via a Bluetooth connection (no internet needed).



Recharging with integrated battery

Models RT1B and WT1B are powered by rechargeable battery. When the battery is low on energy it can be recharged with any charger that has a USB-C port. This saves you time and cost with yearly changes of batteries and avoids potential damage to the thermostat due to spilled battery.

The charging connector is located at the bottom of the thermostat.

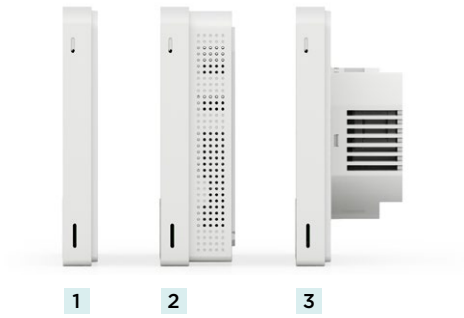


Function VENTILATION

For the purpose of room ventilation room thermostats have a dedicated built-in function VENTILATION.

When the function VENTILATION is activated, the thermostat does not take measured temperature into account for a certain time.

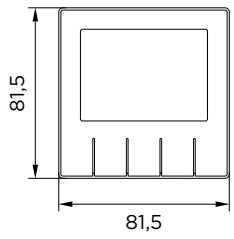
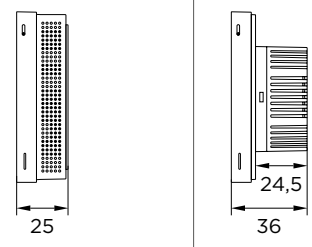
In this way, we prevent overheating of the rooms due to rapidly lowering of room temperature. At the same time, that helps you save energy and decrease heating costs.

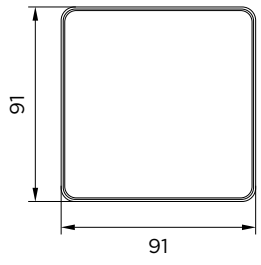
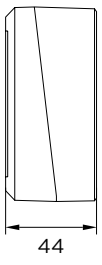


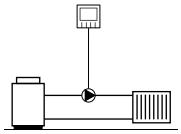
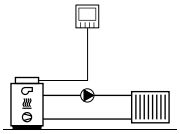
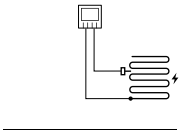
Different models allow three mounting options

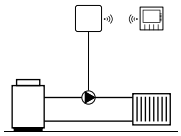
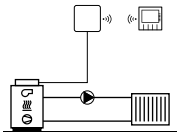
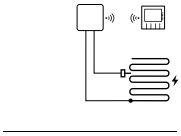
Room thermostats RT, WT can be mounted on the wall in one of three ways (depends on model):

1. Wall mounting with wall panel (only wireless model WT1B)·
2. Mounting on the wall with mounting base (Wired models RT1B, RT1M and wireless model WT1M).
3. Mounting on the wall on the wall socket (Wired model RT2M and wireless model WT2M).

Technical specification for thermostat	RT1B	RT1M	RT2M	WT1B	WT1M	WT2M
Power supply	3,7 V	230 V~/ 50 Hz	230 V~/ 50 Hz	3,7 V	230 V~/ 50 Hz	230 V~/ 50 Hz
Rechargeable LiPo battery	●	—	—	●	—	—
Wired connection	●	●	●	—	—	—
Wireless connection	—	—	—	●	●	●
Housing material	PC – thermoplastic					
Degree of protection	IP20 according to EN 60529					
Safety class	III	II	III	II	II	II
Relay	6(3) A, 230 V~					
Temperature sensor type	Murata NTC (10 kOhm)					
Additional temperature sensor (AUX)	Murata NTC (10 kOhm)					
Additional sensor	●	●	●	—	●	●
Humidity sensor	Option, 10 % ÷ 90 % Rh					
Display	Segment LCD with backlit, black-white					
Efficiency class according to EN 60730-1	Class 4 (2 %)					
Temperature setting range	Setting range in heating: 4 ÷ 40 °C Setting range in cooling: 4 ÷ 40 °C					
Working mode	Heating or cooling					
User functions	PARTY, ECO, HOLIDAY, VENTILATION					
Humidity measuring	Option					
Air quality measuring	Option					
Time program CH1	●					
Time program CH2	●					
Time	●					
Date	●					
Working with ED factor	●					
Working with hysteresis	●					
Parameters settings	●					
Control with smart device	●					
Ambient temperature	0 ÷ 40 °C					
Storage temperature	-20 °C ... +65 °C					
Product weight	~130 g	~140 g	~140 g	~220 g	~270 g	~270 g
No. of pieces in the packaging unit	54 pcs					
Dimensions						

Technical specification for receiver	RRD
Dimensions	 

Applications for RT1B, RT1M, RT2M		
 Circulation pump control ON/OFF.	 Energy source control ON/OFF.	 Electric floor heating control ON/OFF. Protection of screed temperature.

Applications for WT1B, WT1M, WT2M		
 Circulation pump control ON/OFF.	 Energy source control ON/OFF.	 Electric floor heating control ON/OFF. Protection of screed temperature.

Item	Order code	Description
Room thermostat		
	1RND30BF-060	Room thermostat RT1B, battery powered, surfaces-mounting
	1RND30NF-060	Room thermostat RT1M, mains powered, surface-mounting
	1RND30NR-060	Room thermostat RT2M, mains powered, flush-mounting
Wireless room thermostat		
	1RND30WBF-060	Room thermostat WT1B, Wireless, battery powered, surface-mounting
	1RND30WNF-060	Room thermostat WT1M, Wireless, Mains powered, surface-mounting
	1RND30WNR-060	Room thermostat WT2M, Wireless, Mains powered, flush-mounting
Accessories		
	1TFMU-000	Immersion temperature sensor SELTRON TF/M

Outdoor temperature sensor
AFD

Presentation



AFD sensor is used for measurement of outdoor temperature in Seltron controllers. It was designed to accurately measure the outdoor temperature with the lowest possible influence of the wall temperature of the building.

Typical application

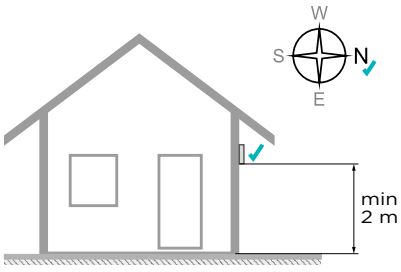
- Measurement of outdoor temperature in private or industrial facilities.
- Measurement of indoor temperature where greater resistance to mechanical and other influences is required.

Mounting



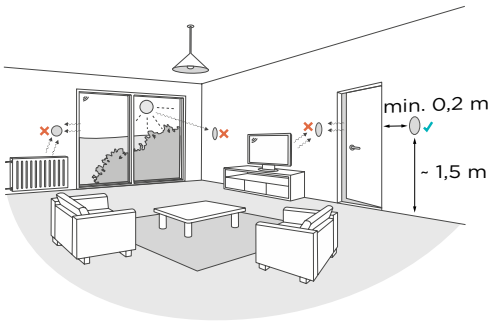
Mounting

Sensor is mounted on the wall.
Mounting accessories for mounting on the facade are included.
Built in water-level allows easy alignment of the sensor.



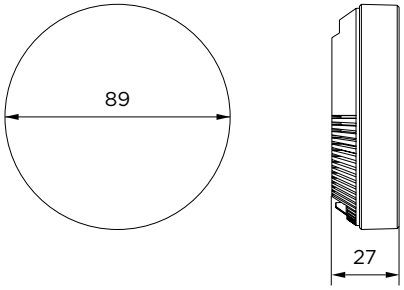
Outdoor mounting

If the sensor is used for measurement of outdoor temperature, it must be ensured that it is not directly exposed to the sun, therefore It should be mounted on the north side of the building. The mounting position is at least 2 m above the ground. It must be ensured that the sensor is not mounted above or near heat sources (window, vent, etc.).



Indoor mounting

If the sensor is used for measurement of indoor temperature, it must be ensured that it is not exposed to heat sources (at or above radiators, by the doors, ect...). It should be mounted on the inside wall of the building.

Technical data	Type AFD/Pt	Type AFD/5	Type AFD/M
Sensor type	Pt1000 Class B	KTY10-5	Murata NTC 10 kOhm
Temperature range		-40÷50 °C	
Cross section of cables		2x0,25 mm² ÷ 2x0,5 mm²	
Protection level		IP20	
Weight		65 g	
Dimensions			

Temperature (°C)	Resistance (Ω) for AFD/Pt	Resistance (Ω) for AFD/5	Resistance (Ω) for AFD/M
-20	922	1340	68237
-15	941	1410	53650
-10	961	1475	42506
-5	980	1540	33892
0	1000	1613	27219
5	1020	1680	22021
10	1039	1752	17926
15	1058	1825	14674
20	1078	1900	12081
25	1097	1975	10000
30	1117	2050	8315
35	1136	2130	6948
40	1155	2210	5834
45	1175	2290	4917
50	1194	2370	4161
55	1213	2450	3535

Product	Order code	Description
	1FODPT-NN0	Outdoor temperature sensor SELTRON AFD/Pt
	1FOD5-NN0	Outdoor temperature sensor SELTRON AFD/5
	1FODM-NN0	Outdoor temperature sensor SELTRON AFD/M

Immersion temperature sensor
TF/Pt

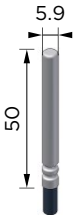
Presentation



The TF/Pt immersion sensor belongs to the optional equipment range for Seltron heating controllers.

Typical application

- The TF/Pt immersion sensor is compatible with all Seltron heating controllers and is used to measure temperature in boilers, domestic hot water storage tanks, solar collectors and elsewhere.
- During the installation, the sensor is placed in the TH1 or TH2 immersion tube.

Technical characteristics	
Sensor element	Pt1000
Operating temperature range	-25÷150 °C
Minimum cross-section of the wires	2 x 0,22 mm²
Standard cable length	3 m
Maximum cable length	30 m
Product weight	100 g
Dimensions	

Item	Order code	Description
	1TFPT-000	Immersion temperature sensor SELTRON TF/Pt

Surface temperature sensor
VF/Pt

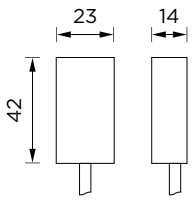
Presentation



The VF/Pt surface sensor belongs to the optional equipment range for Seltron heating controllers.

Typical application

- VF/Pt surface sensor is compatible with all Seltron heating controllers and is used to measure pipeline temperature.

Technical characteristics	
Sensor element	Pt1000
Operating temperature range	0÷85 °C
Minimum cross-section of the wires	0.3 mm^2
Standard cable length	3 m
Maximum cable length	30 m
Product weight	120 g
Dimensions	

Item	Order code	Description
	1VFPT-000	Surface temperature sensor SELTRON VF/Pt

Flue gas temperature sensor
CF/Pt

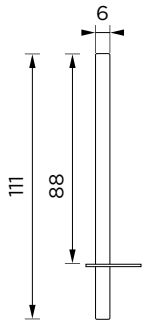
Presentation



The CF/Pt temperature sensor belongs to the optional equipment range for Seltron heating controllers.

Typical application

- The CF/Pt temperature sensor is used to measure flue gas temperature in the operating range up to 350 °C.

Technical characteristics	
Sensor element	Pt1000
Operating temperature range	20÷350 °C
Minimum cross-section of the wires	0.3 mm²
Maximum cable length	30 m
Product weight	120 g
Dimensions	

Item	Order code	Description
	1CFPT90-000	Flue gas temperature sensor SELTRON CF/Pt, 90 mm sensor

Communication interface **GWD3E**

Presentation



The GWD3E communication interface is intended for connection of Seltron controllers, room units and thermostats to the SeltronHome platform.

Typical application

- GWD3E communication interface is used to transfer data between SELTRON devices and the SeltronHome platform, thus enabling remote control and management of the system.
- The connection with internet can be wired using Ethernet cable (UTP) or wireless using Wi-Fi network.

Features

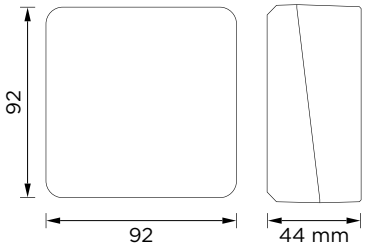
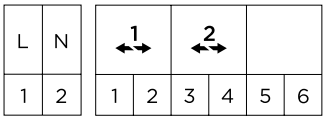
- Connection of up to two Seltron controllers.
- Automatic software update of the module (OTA).
- LED indicating input and output statuses.
- Easy and automatic connection with a Wi-Fi network, using WPS quick connection button.
- Simple wall installation with two supplied screws and easy connection to the Seltron controller using two-wire cable.
- It enables remote management, the configuration and servicing of the device from anywhere and anytime.

Description



1 – Connection with SeltronHome platform.
2 – Connection with a Wi-Fi network.
3 – Ethernet connection.
4 – First controller.
5 – Second controller.
6 – Power supply.
7 – WPS/Reset button.
8 – Registration key.
9 – Ethernet port.

Item	Order code	Description
	1GWD3E-040	Communication module SELTRON GWD3E

Technical characteristics	GWD3E
LED indication of connected Seltron controllers	•
LED indication of connection with local network (LAN or Wi-Fi)	•
LED indication of connection with SeltronHome platform	•
Button for setup of communication interface and WPS	•
Setup and installation	
Possibility of wall installation	•
Simple installation and connection	•
Supported Seltron controllers	
Series WDC - v3.1.0 and newer	•
Series KXD - v1.0.0 and newer	•
Series WXD - v2.0.1 and newer	•
Series SGC - v4.0.0 and newer	•
Series KUD - 1.2.2 and newer	•
Series KPD - v1.3.0 and newer	•
Series AHD - v.1.0.0 and newer	•
Series AHC - v1.0.1 and newer	•
Series CMP - v3.2.0 and newer	•
Series BXD L - v2.1.0 and newer	•
ZCE - V1.0.0 and newer	•
Technical specifications	
Connection voltage	230 V~, 50 Hz
Energy consumption	0,5 W
Data usage during communication with platform	~30 MB/device/month
Method of installation	On the wall
Degree of protection	IP20 to EN 60529
Safety class	II to EN 60730-1
Cross-section of network cables	0,5÷0,75 mm²
Cross-section of communication cables	0,25÷0,33 mm²
Permitted relative humidity	max. 85 % RH at 25 °C
Housing material	PC-thermoplastic
Permitted ambient temperature	5÷40 °C
Storage temperature	-20÷65 °C
Wireless connection	Wi-Fi IEEE 802.11b/g/n, 2,4 GB
Program class	A
Product weight	465 g
Nr. of pieces in packing unit	24 pcs
Dimensions	
Electrical connection	

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