

# WITA heating controllers



## WHC WHC +

### Product description

WITA heating controllers (WHC) are advanced heating controllers, installed in standard-dimension housings of 144 x 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 control for up to 2 heating circuits, enable 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.

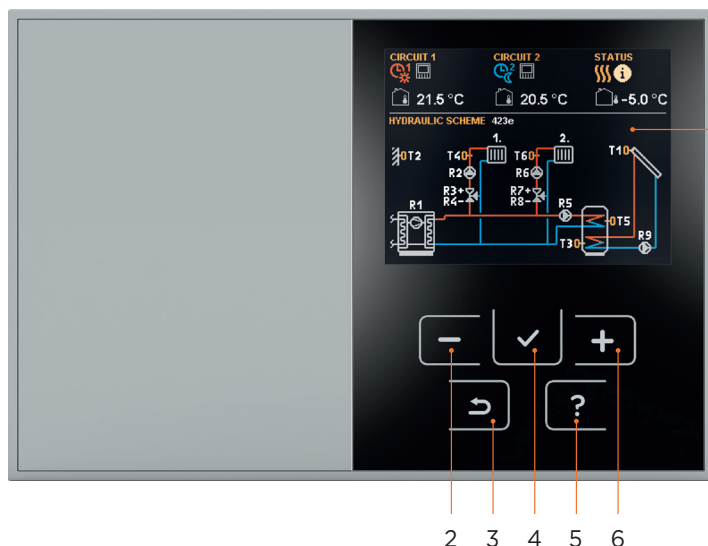
### Features

- 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 home system.

### Typical application

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

- 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.



**Technical data**

	WHC	WHC +
	art. no. R WHC 100	art. no. R WHC 200
<b>Typical application</b>		
Radiator room heating system control	●	●
Floor heating or cooling system control	●	●
Convactor heating or cooling system control	●	●
Wall or ceiling heating or cooling system control	●	●
Domestic hot water heating	●	●
<b>Technical characteristics</b>		
No. of preset hydraulic schemes	7	52
No. of room units	2	2
No. of mechanical relays	6	9
No. of solid state relays	-	1
No. of temperature sensor inputs	7	8
No. of analogue outputs (0÷10 V or PWM) for the control of the circulation pump or an energy source	1	2
BUS option - the interconnection of WHC controllers and connection with other controllers of the same brand	●	●
Wireless room unit & sensors	●	●
<b>System control</b>		
Control of a heating system with radiators	●	●
Floor heating or cooling system control	●	●
Convactor heating or cooling system control	●	●
Wall or ceiling heating or cooling system control	●	●
Domestic hot water heating system control	●	●
<b>Heating circuits control</b>		
Direct circuit	1	1
Mixing circuit	1	2
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	-	●
<b>Heat source control</b>		
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	-	●
<b>Domestic hot water heating</b>		
With a primary heating source	●	●
With a storage tank	●	●
Using a solar system	-	●
<b>User functions</b>		
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	●	●

# WITA heating controllers

## Technical data

	WHC	WHC +
	art. no. R WHC 100	art. no. R WHC 200
<b>Heating system protection</b>		
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	●	●
<b>A comprehensive overview of the heating system operation</b>		
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	●	●
<b>Remote access</b>		
Possibility of USB connection to a PC	●	●
Connectivity to the home platform providing remote control using a smartphone or tablet	●	●
<b>Setup and installation</b>		
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

### WHC controller installation

The WHC 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

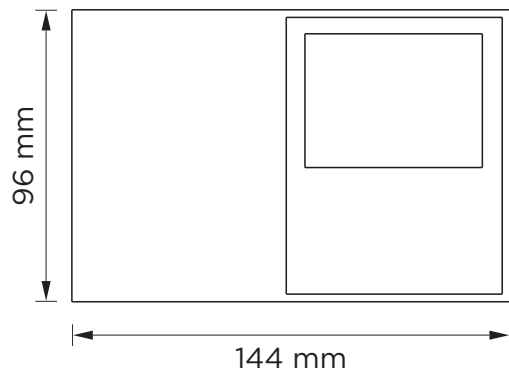


## Technical specifications

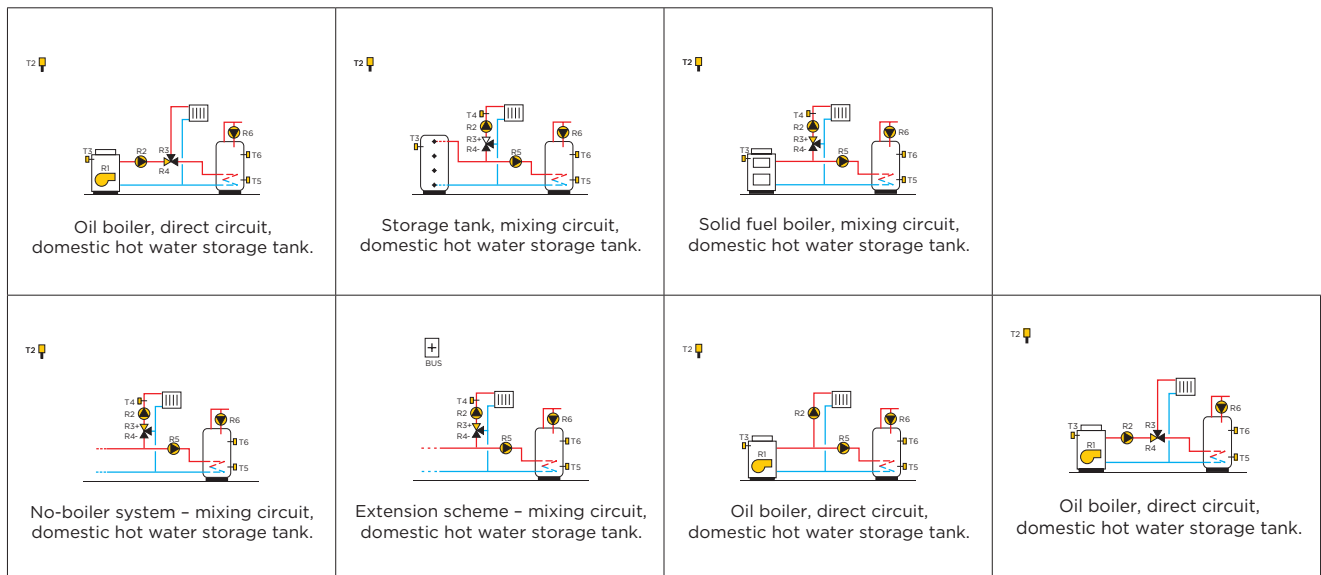
## WHC, WHC +

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
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

## Dimensions

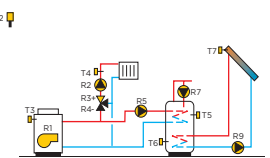
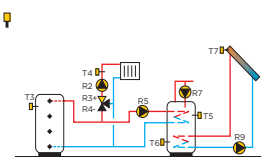
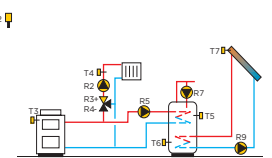
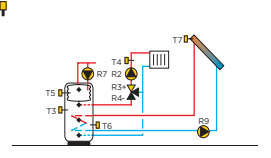
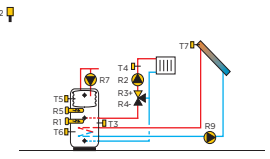
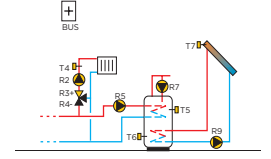
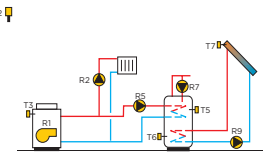
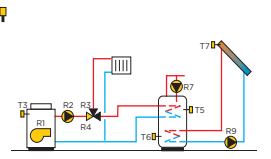
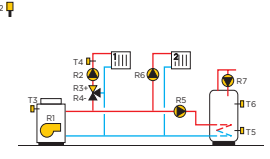
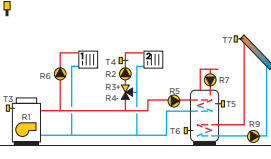
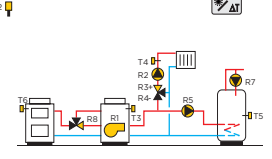
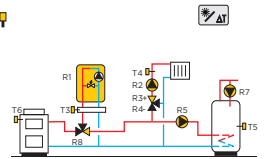
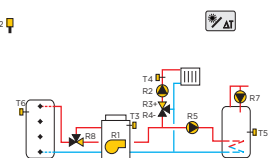
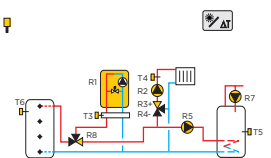
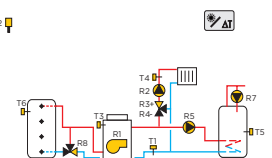
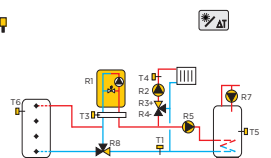
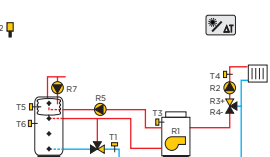
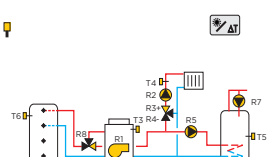
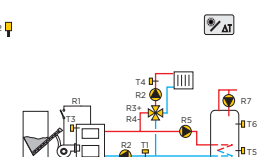
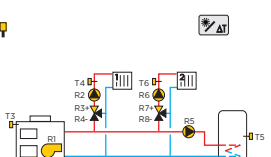
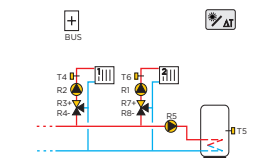


## Hydraulic schemes for WHC and WHC +

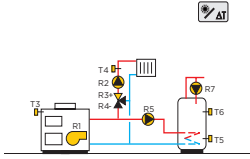
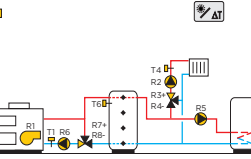
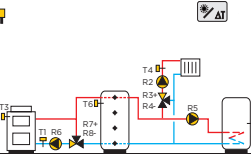
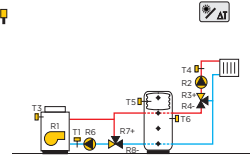
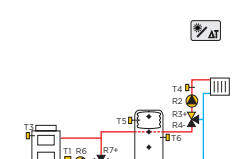
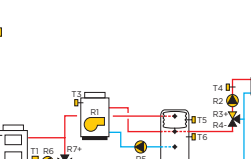
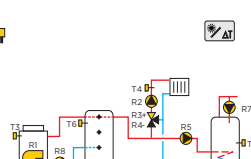
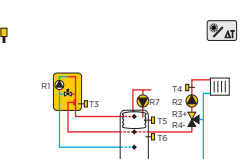
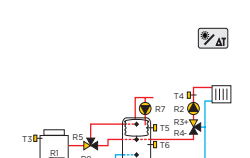
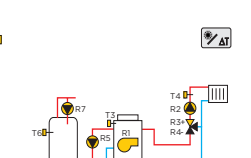
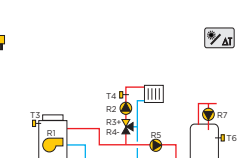
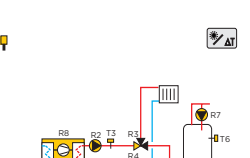
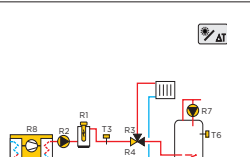
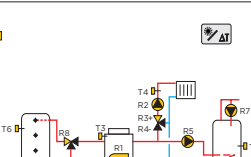
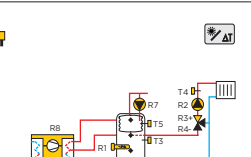
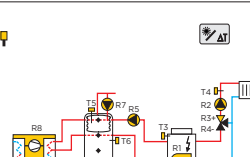
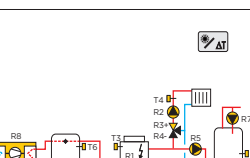
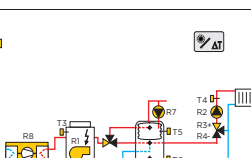
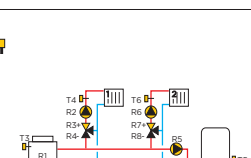
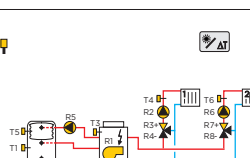
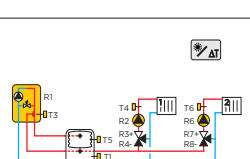
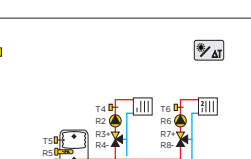
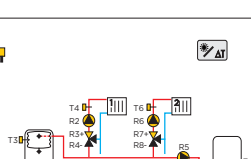
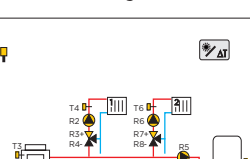


# WITA heating controllers

## Hydraulic schemes for WHC +

 <p>Oil boiler, mixing circuit, domestic hot water storage tank, solar collectors.</p>	 <p>Storage tank, mixing circuit, domestic hot water storage tank, solar collectors.</p>	 <p>Solid fuel boiler, mixing circuit, domestic hot water storage tank, solar collectors.</p>	 <p>Storage tank with integrated domestic hot water storage tank, mixing circuit, solar collectors.</p>
 <p>Storage tank with integrated domestic hot water storage tank, mixing circuit, auxiliary heating with electricity, solar collectors.</p>	 <p>Extension scheme - mixing circuit, domestic hot water storage tank, solar collectors.</p>	 <p>Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.</p>	 <p>Oil boiler, direct circuit, domestic hot water storage tank, solar collectors.</p>
 <p>Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank.</p>	 <p>Oil boiler, mixing circuit, direct circuit, domestic hot water storage tank, solar collectors.</p>	 <p>Solid fuel boiler, oil boiler, mixing circuit, domestic hot water storage tank.</p>	 <p>Solid fuel boiler, gas boiler, mixing circuit, domestic hot water storage tank.</p>
 <p>Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.</p>	 <p>Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.</p>	 <p>Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.</p>	 <p>Storage tank, gas boiler, mixing circuit, domestic hot water storage tank.</p>
 <p>Storage tank with integrated domestic hot water storage tank, oil boiler, mixing circuit.</p>	 <p>Storage tank, oil boiler, mixing circuit, domestic hot water storage tank.</p>	 <p>Pellet boiler, mixing circuit, domestic hot water storage tank.</p>	 <p>Combined boiler (solid fuel/oil), 2 mixing circuits, domestic hot water storage tank.</p>
 <p>Extension scheme, combined boiler (solid fuel/oil), domestic hot water storage tank, 2 mixing circuits.</p>			

## Hydraulic schemes for WHC +

 <p>Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.</p>	 <p>Combined boiler (solid fuel/oil), storage tank, mixing circuit, domestic hot water storage tank.</p>	 <p>Solid fuel boiler, storage tank, mixing circuit, domestic hot water storage tank.</p>	 <p>Combined boiler (solid fuel/oil), storage tank with integrated domestic hot water storage tank, mixing circuit.</p>
 <p>Solid fuel boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.</p>	 <p>Solid fuel boiler, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.</p>	 <p>Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.</p>	 <p>Gas boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.</p>
 <p>Oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.</p>	 <p>Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.</p>	 <p>Combined boiler (solid fuel/oil), mixing circuit, domestic hot water storage tank.</p>	 <p>Heat pump, direct circuit, domestic hot water storage tank.</p>
 <p>Heat pump, auxiliary heating with electricity, direct circuit, domestic hot water storage tank.</p>	 <p>Oil boiler, storage tank, mixing circuit, domestic hot water storage tank.</p>	 <p>Heat pump, storage tank with integrated domestic hot water storage tank, auxiliary heating with electricity, mixing circuit.</p>	 <p>Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.</p>
 <p>Heat pump, oil boiler, storage tank, mixing circuit, domestic hot water storage tank.</p>	 <p>Heat pump, oil boiler, storage tank with integrated domestic hot water storage tank, mixing circuit.</p>	 <p>Oil boiler, 2 mixing circuits, domestic hot water storage tank.</p>	 <p>Storage tank with integrated domestic hot water storage tank, oil boiler, 2 mixing circuits.</p>
 <p>Gas boiler, storage tank with integrated domestic hot water storage tank, 2 mixing circuits.</p>	 <p>Storage tank with integrated domestic hot water storage tank, heating with electricity, 2 mixing circuits.</p>	 <p>Storage tank, 2 mixing circuits, domestic hot water storage tank.</p>	 <p>Solid fuel boiler, 2 mixing circuits, domestic hot water storage tank.</p>