

DTR

INSTALLATION AND OPERATION

MANUAL

WATER/HEATER COOLER

- WANAS Mini

- WANAS Maxi



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1. GENERAL INFORMATION

1.1 Introduction

All guidelines contained in the installation and operation manual regarding assembly, commissioning and safety must be followed.

The WANAS water heater-cooler is a device designed for cooling or heating the air supplied to rooms. It is installed on the supply air duct downstream of the heat recovery unit and is controlled using any WANAS heat recovery unit. It is an ideal match for a heat pump, where the cooling from the lower source is used for the cooling circuit. This setup provides the most cost-effective way to cool rooms and regenerate the lower source.

The device can also be installed before the heat recovery unit, on the intake side, functioning as a Ground Water Collector (GWC).

ADVANTAGES:

- **Comfort-** The ability to lower temperature in the building during the summer.
- **Energy Savings** – The most cost-effective form of cooling rooms using the lower source of a heat pump. Energy is used exclusively to power the circulation pump.
- **Consistent Design:** The external appearance is in line with WANAS heat recovery units.
- **Easy Control:** The unit is controlled via a controller, which is standard equipment for all WANAS heat recovery units.
- **Convenient Installation** – The module can be installed in any orientation relative to the airflow, as it is double-sided.

1.2 Safety

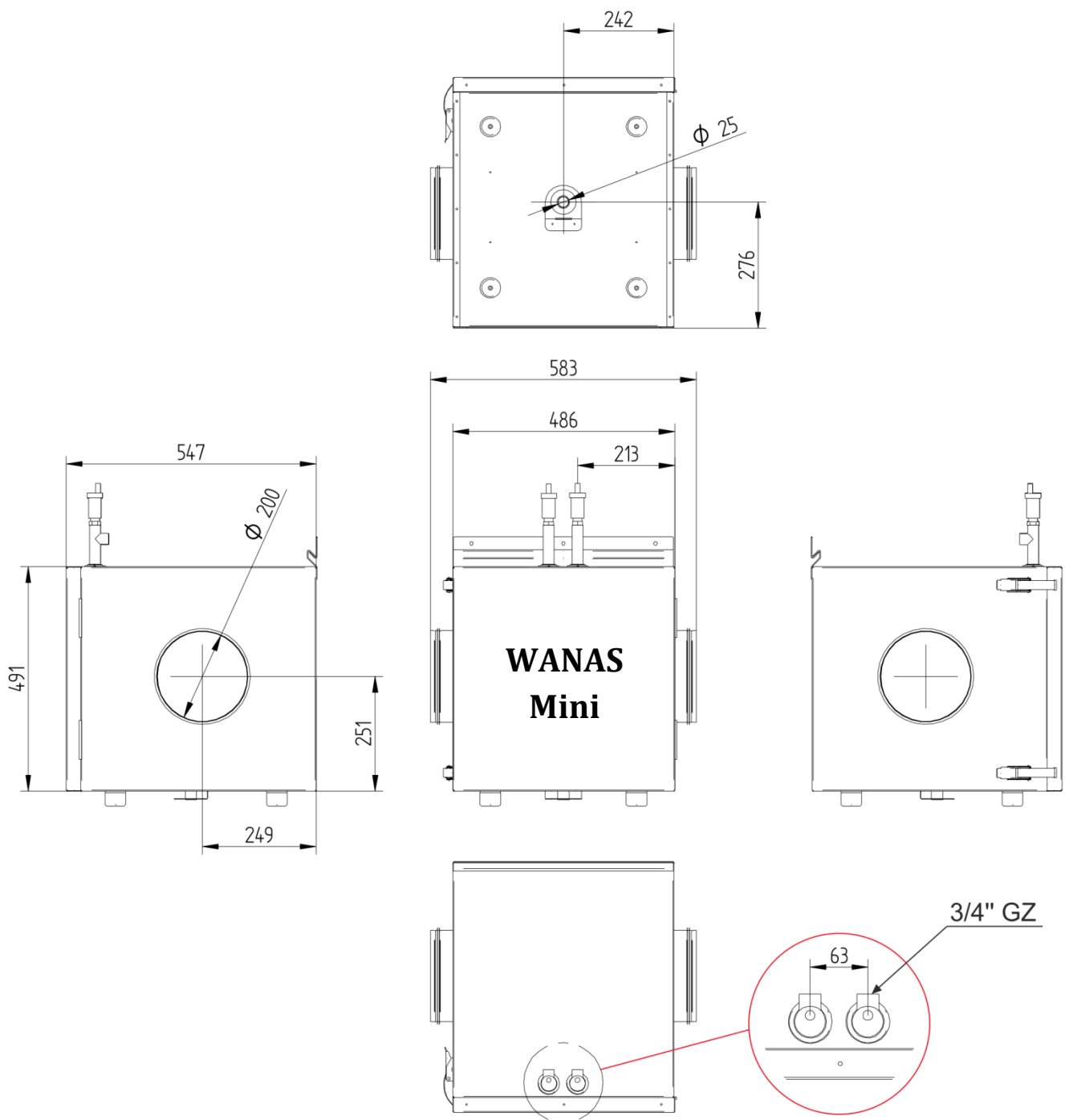
- The device may only be operated by adults who have read the user manual.
- The device should be installed by individuals with the appropriate qualifications and certifications.
- It is prohibited to operate the device in a building where construction work is underway.
- The manufacturer is not responsible for damages resulting from the use and installation of the device not in accordance with the manual.
- The cooler should be installed in an environment where the temperature ranges from 5°C to 45°C.
- The cooler should be filled with glycol with a **freezing point of -20°C**.
- Before starting, **the siphon must be filled**.

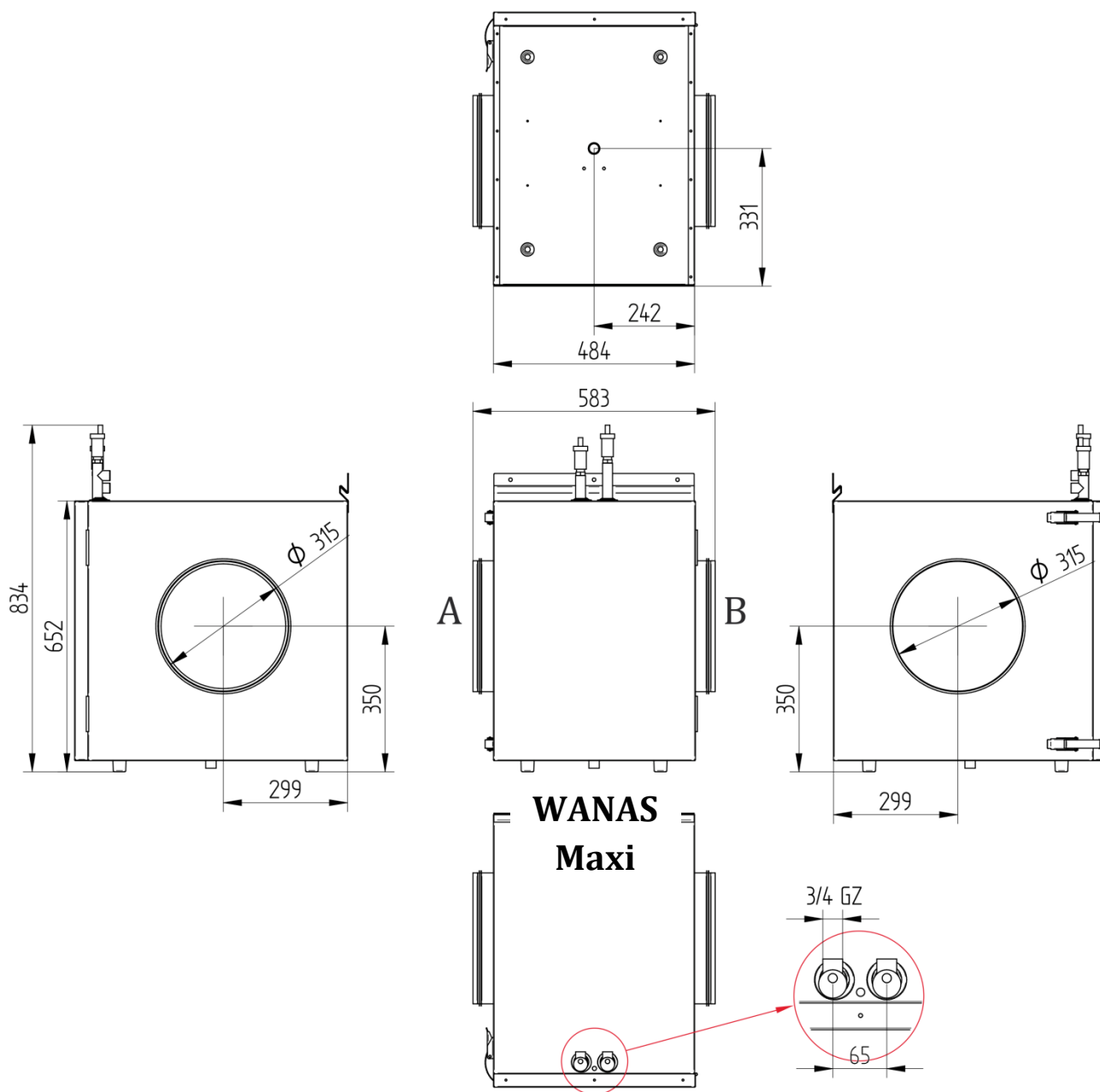
1.3. Delivery

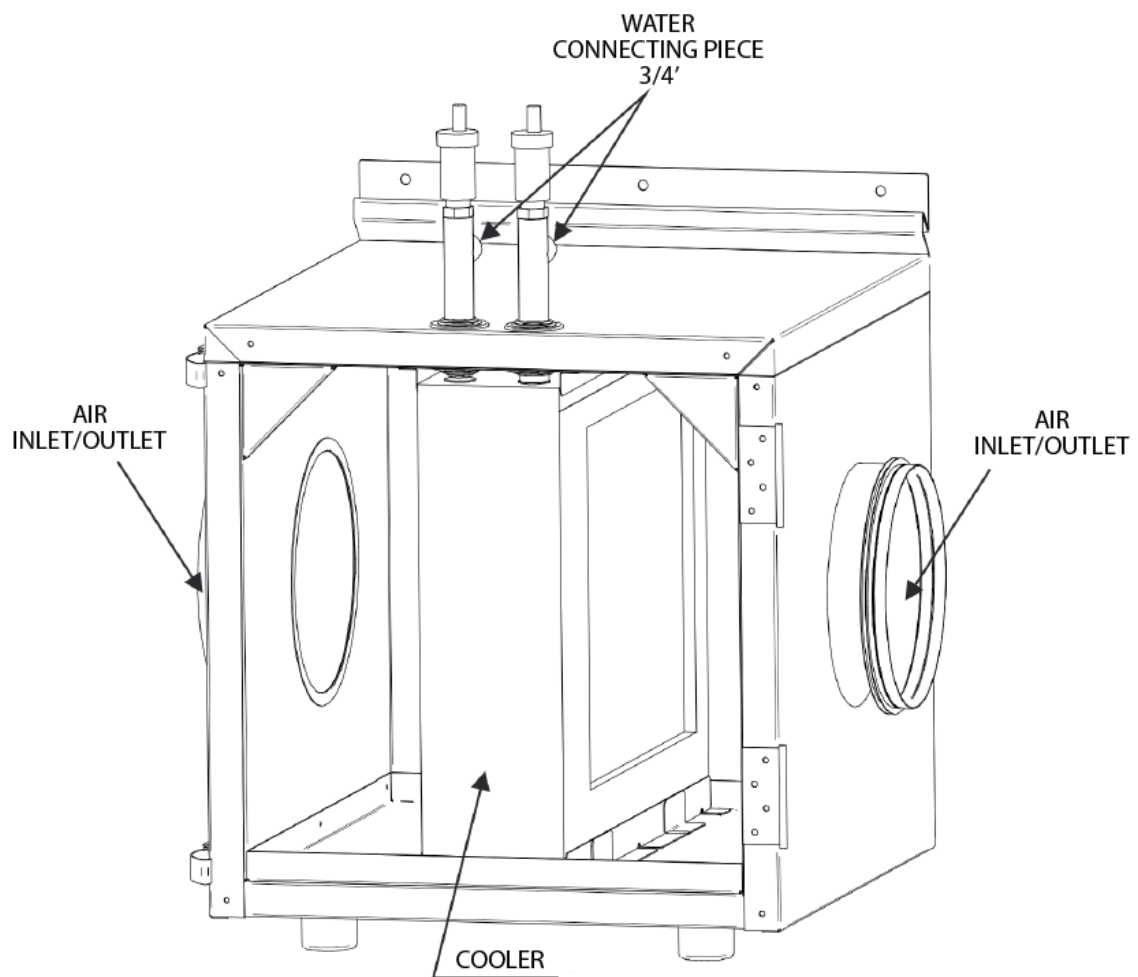
Each device in the set comes with connection ports with an automatic air vent – external thread $\frac{3}{4}$ inch, 4 seals $\frac{3}{4}$ inch, a mounting bracket, wall plugs for the bracket, and a siphon.

Additionally, an external temperature sensor W-1000 or a duct sensor EXTRA TEMP can be purchased separately for the device.

2. DIMENSIONS AND CONSTRUCTION OF THE COOLER







3. PARAMETERS

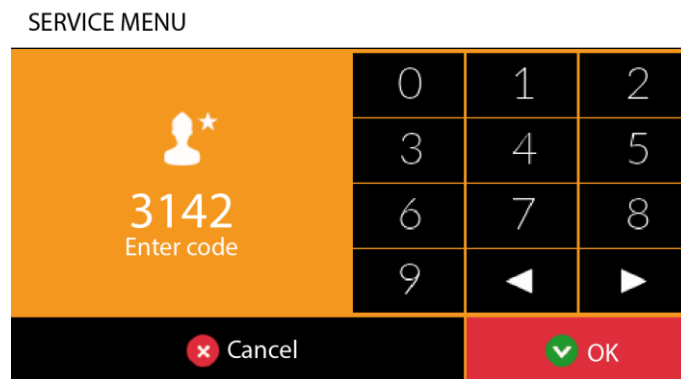
Recommended flow rate	m ³ /h	600	1300
Efficiency to	kW	3,10	7,3
Energy consumption	W	-	-
Weight	kg	29,5	45,5
Connector arrangement	-	universal	

Specification of Wanas Mini Cooler										
Ethylene Glycol 40%, 6/12°C										
Air		Inlet Air Temp.	Inlet Air Humidity	Outlet Air Temp.	Outlet Air Humidity	Power	Active power	Water Flow	Water Pressure Drop	Air Pressure Drop
m³/h	m/s	°C	%	°C	%	kW	kW	m³/h	kPa	Pa
200	1,5	32	45	15,5	86,9	1,7	1,0	0,28	2,42	29,2
		30	45	15,2	85,7	1,4	1,0	0,23	2,02	28,5
		25	50	14,2	84,8	0,9	0,7	0,15	1,33	27,7
400	1,5	32	45	19,1	80,5	2,4	1,6	0,40	4,00	63,2
		30	45	18,3	79,3	2,0	1,5	0,33	2,86	60,5
		25	50	15,7	83,8	1,4	1,2	0,23	2,03	57,6
600	2,2	32	45	21	77,4	2,8	2,1	0,47	5,21	100,4
		30	45	19,6	78,1	2,4	2	0,40	3,95	95,4
		25	50	16,4	83,0	1,8	1,7	0,3	2,56	90,2
800	2,9	32	45	22,1	75,3	3,1	2,5	0,52	6,3	154,3
		30	45	20,2	78,1	2,8	2,5	0,47	5,2	166,6
		25	50	17,2	79,8	2,1	2,0	0,34	3,0	159,9
Specification of WANAS Maxi Cooler										
Ethylene Glycol 40%, 6/12°C										
Air		Inlet Air Temp.	Inlet Air Humidity	Outlet Air Temp.	Outlet Air Humidity	Power	Active power	Water Flow	Water Pressure Drop	Air Pressure Drop
m³/h	m/s	°C	%	°C	%	kW	kW	m³/h	kPa	Pa
300	0,42	32	45	11,6	99,9	3,29	2,08	0,52	1	4,3
		30	45	11,5	100	2,76	1,89	0,44	0,8	4,1
		25	50	11,0	100	1,87	1,42	0,3	0,5	3,9
600	0,84	32	45	14,6	99,9	5,07	3,56	0,81	1,79	13,2
		30	45	14,2	98,5	4,25	3,22	0,68	1,41	12,8
		25	50	13,5	93,3	2,82	2,34	0,45	0,84	11,3
		32	45	16,9	92,3	6,33	4,62	1,02	2,44	25,6

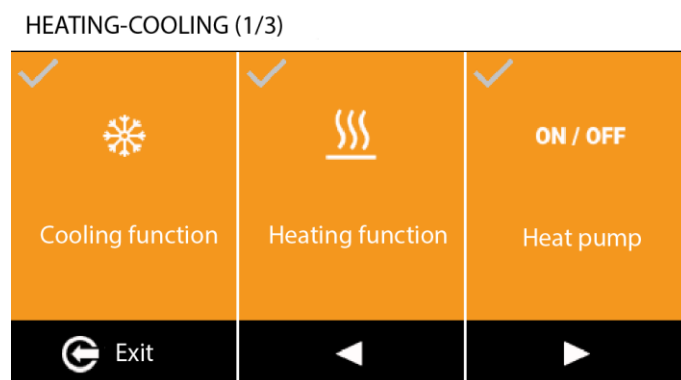
900	1,26	30	45	16,6	88	5,31	4,11	0,86	1,93	24,6
		25	50	15,4	84,5	3,47	2,93	0,56	1,1	21,3
1200	1,68	32	45	18,8	84,7	7,33	5,41	1,18	3,04	41
		30	45	18,3	80,8	6,09	4,76	0,97	2,31	38,6
		25	50	16,7	78,6	3,95	3,36	0,63	1,28	33,5

4. FUNCTION ACTIVATION

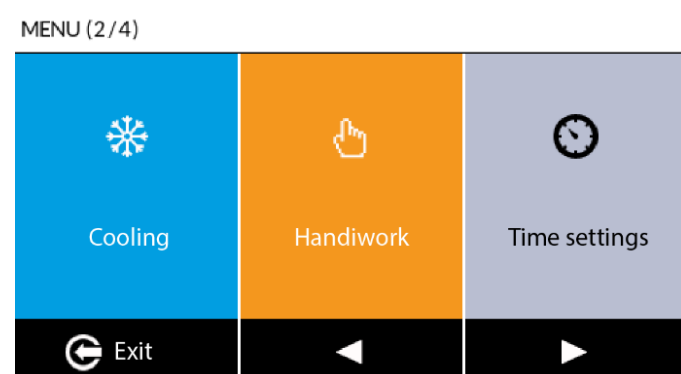
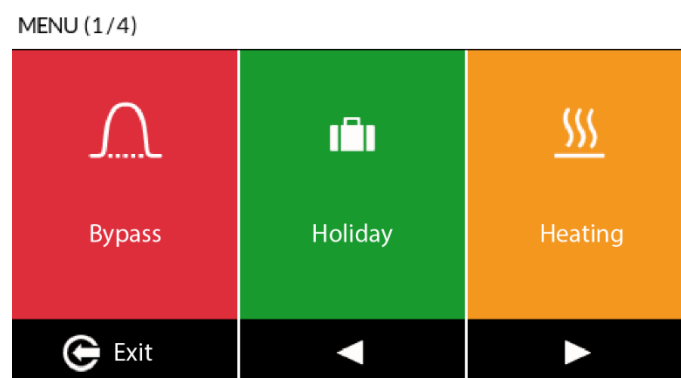
4.1. Heating and cooling



The heating and/or cooling function is activated in the Service Menu.



Active functions are indicated by a flashing tick.



HEATING/COOLING Function – After activating the function, an HEATING/COOLING icon will appear in the Main Menu.

HEATING

1
Days

MIN 1

MAX 60

✕ Cancel

✓ OK

COOLING

6
Days

MIN 1

MAX 60

✕ Cancel

✓ OK

Select the option you want to activate and the number of days for which it should be activated.

MON	TUE	WED	THU	FRI	SAT	SUN
From&	To&	Efficiency	Temperature			
-00:00-	05:00		20°			
05:00	10:00		20°			
10:00	15:00		20°			
15:00	20:00		20°			
20:00	-00:00-		20°			

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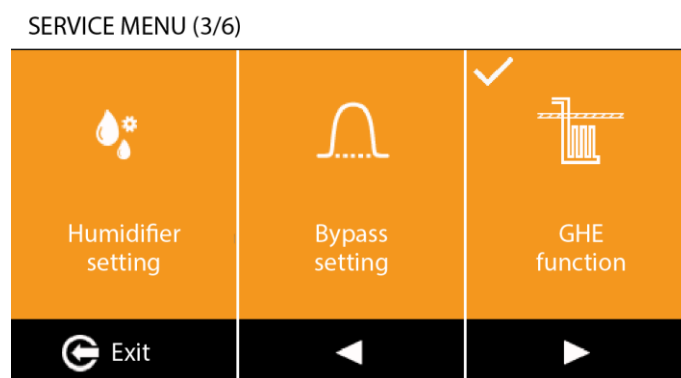
✕ Cancel

✓ OK

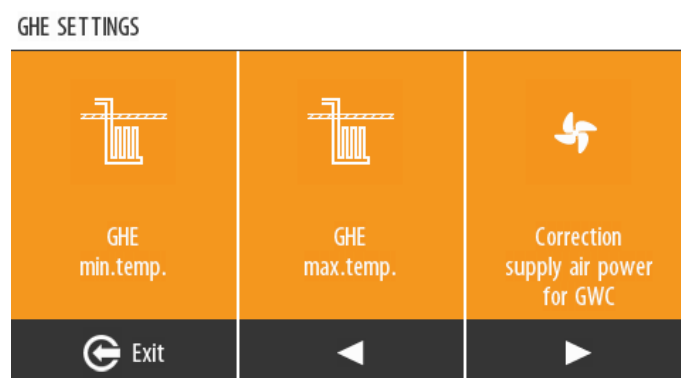
- Heating is activated when the room temperature is lower than the set temperature in the weekly program.
- The cooler is activated when the room temperature is higher than the set temperature in the program menu.

WARNING: The water heater/cooler is not intended for heating the building but for pre-heating/cooling the supply air. When installing the heater, you can connect an additional temperature sensor on the supply air duct one meter downstream of the heater. The sensor should be connected to the EXTRA TEMP additional temperature input. Activate it in the service menu under the "EXTRA TEMP Sensor" tab by selecting the "On Supply" option.

4.2. GWC

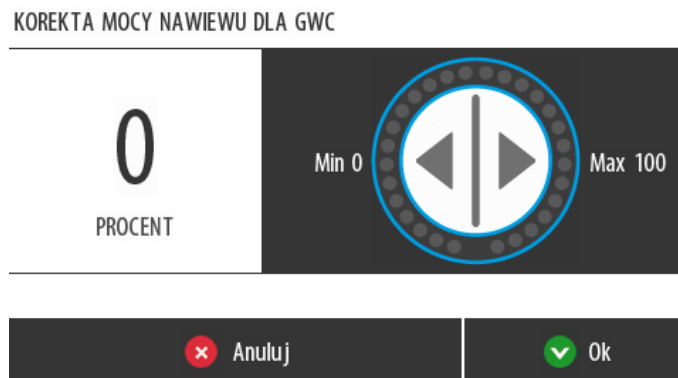


The GWC function is activated in the Service Menu. The active function is indicated by a flashing "tick." To activate the GWC, an additional external air temperature sensor must be installed.

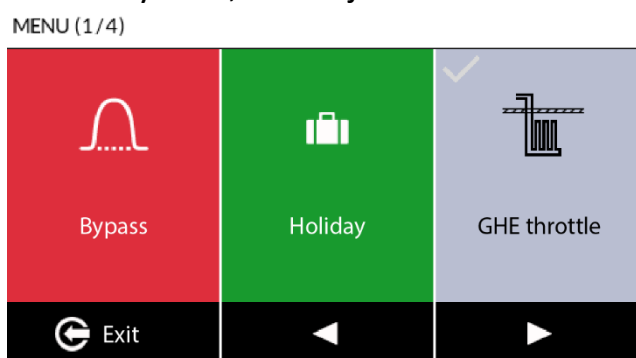


Min. GWC Temperature – The temperature below which the GWC will activate, applicable for the winter period. Recommended: -5°C

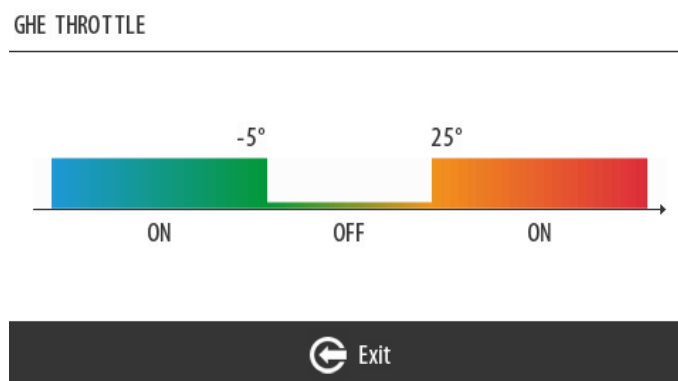
Max. GWC Temperature – The temperature above which the GWC will activate, applicable for the summer period. Recommended: +25°C



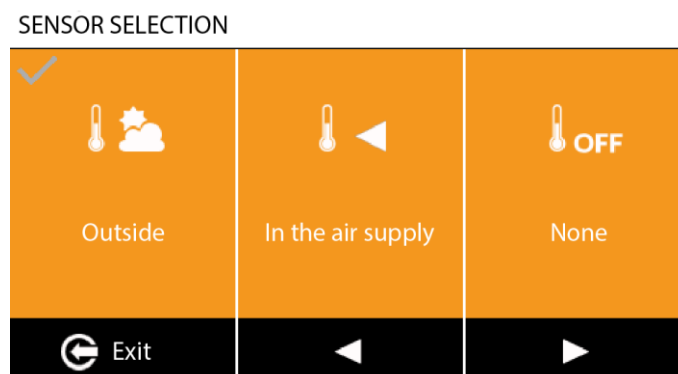
Airflow Adjustment for GWC – The ability to increase the supply fan power to balance the air resistance through the GWC. When the GWC is activated, the fan will automatically adjust its performance by the set correction value. In heat recovery units with the XF system, this adjustment occurs automatically.



After activating the GWC function, an **GWC DAMPER** icon will appear in the Main Menu.



In the Main Menu, the operating range of the GWC, set in the Service Menu, is visible. Temperature adjustments should only be made in the Service Menu.

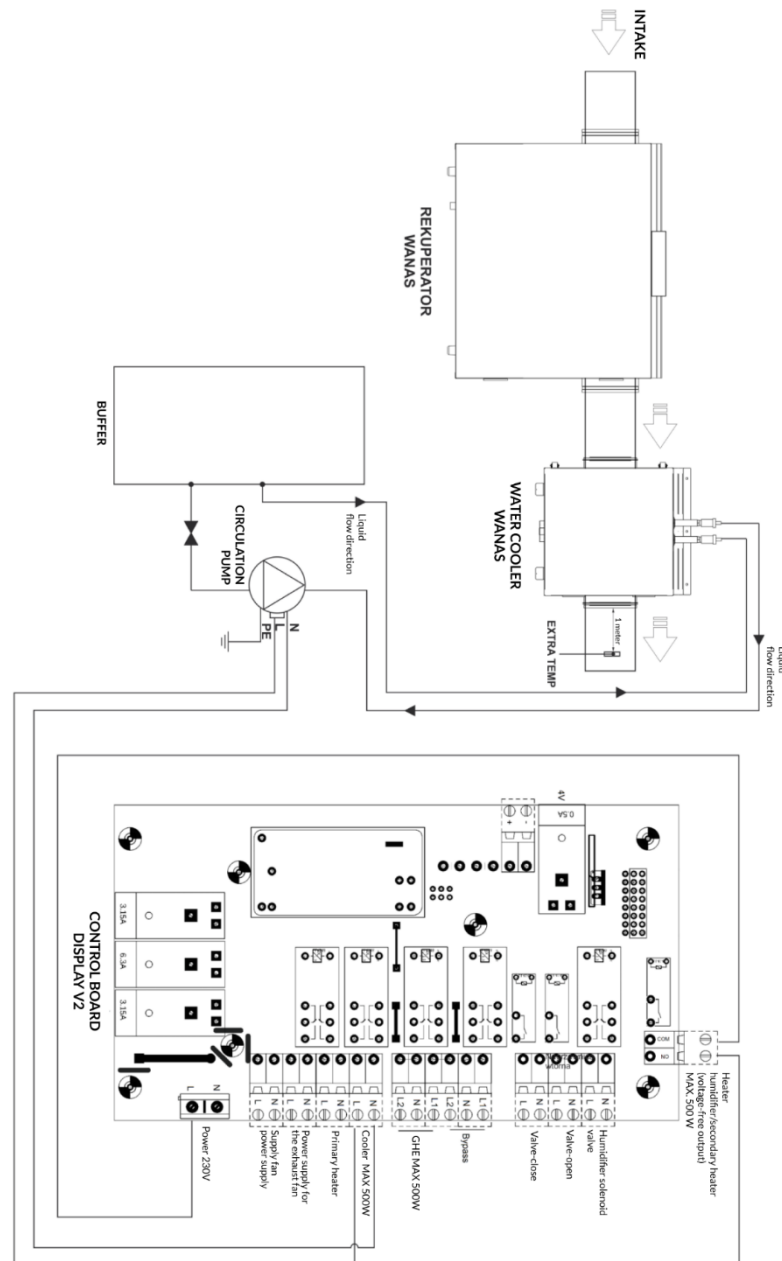


When connecting the GWC to the main board, the external temperature sensor W-1000 must be plugged into the EXTRA TEMP input and activated in the Service Menu under the "EXTRA TEMP Sensor" tab by selecting the "External" option.

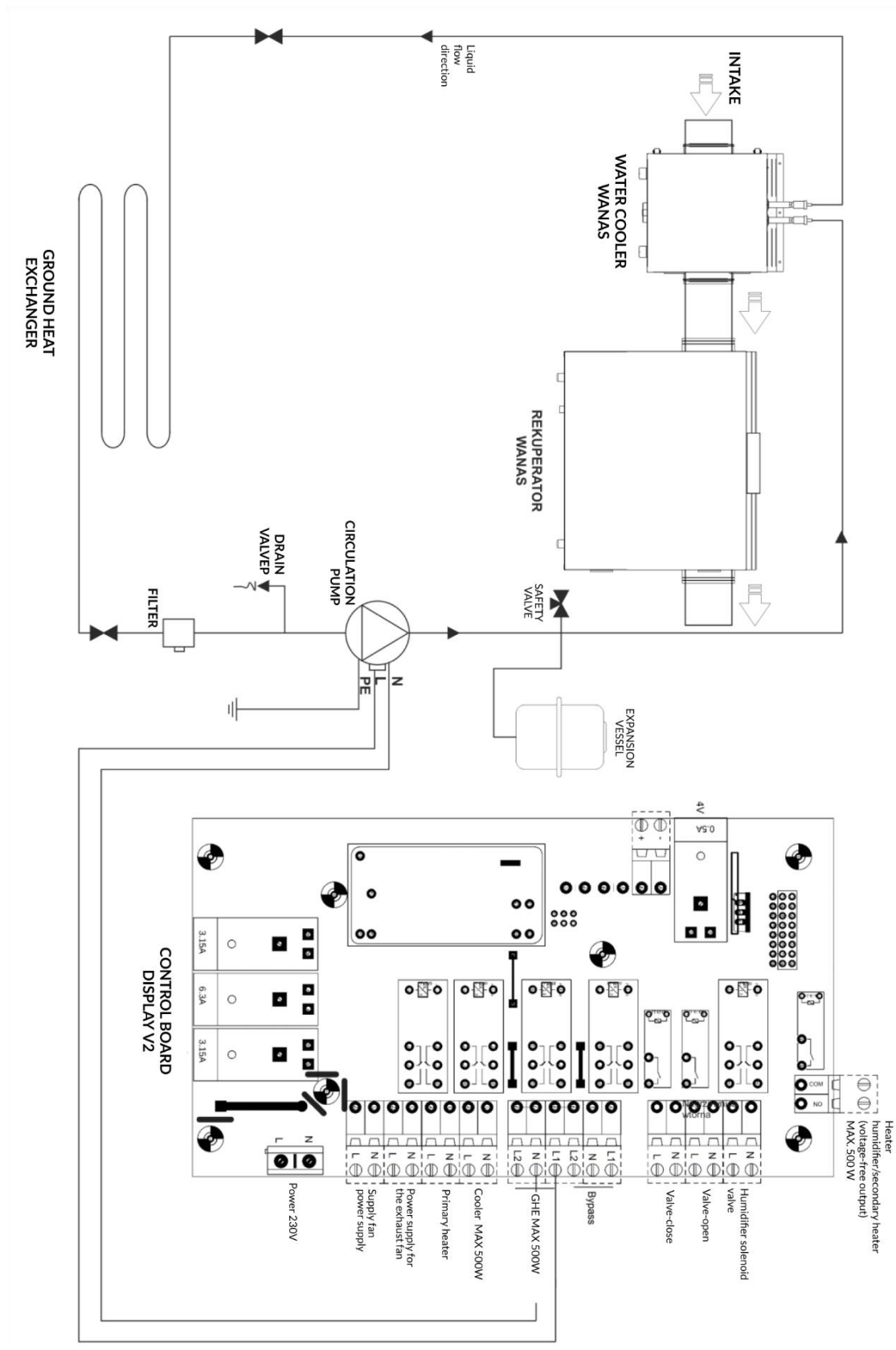
The sensor should be placed in a shaded location outside the building on the wall where the intake is installed. During the summer, when the GWC is activated, the bypass always opens to prevent air from passing through the heat exchanger and being heated.

5. CONNECTION DIAGRAMS

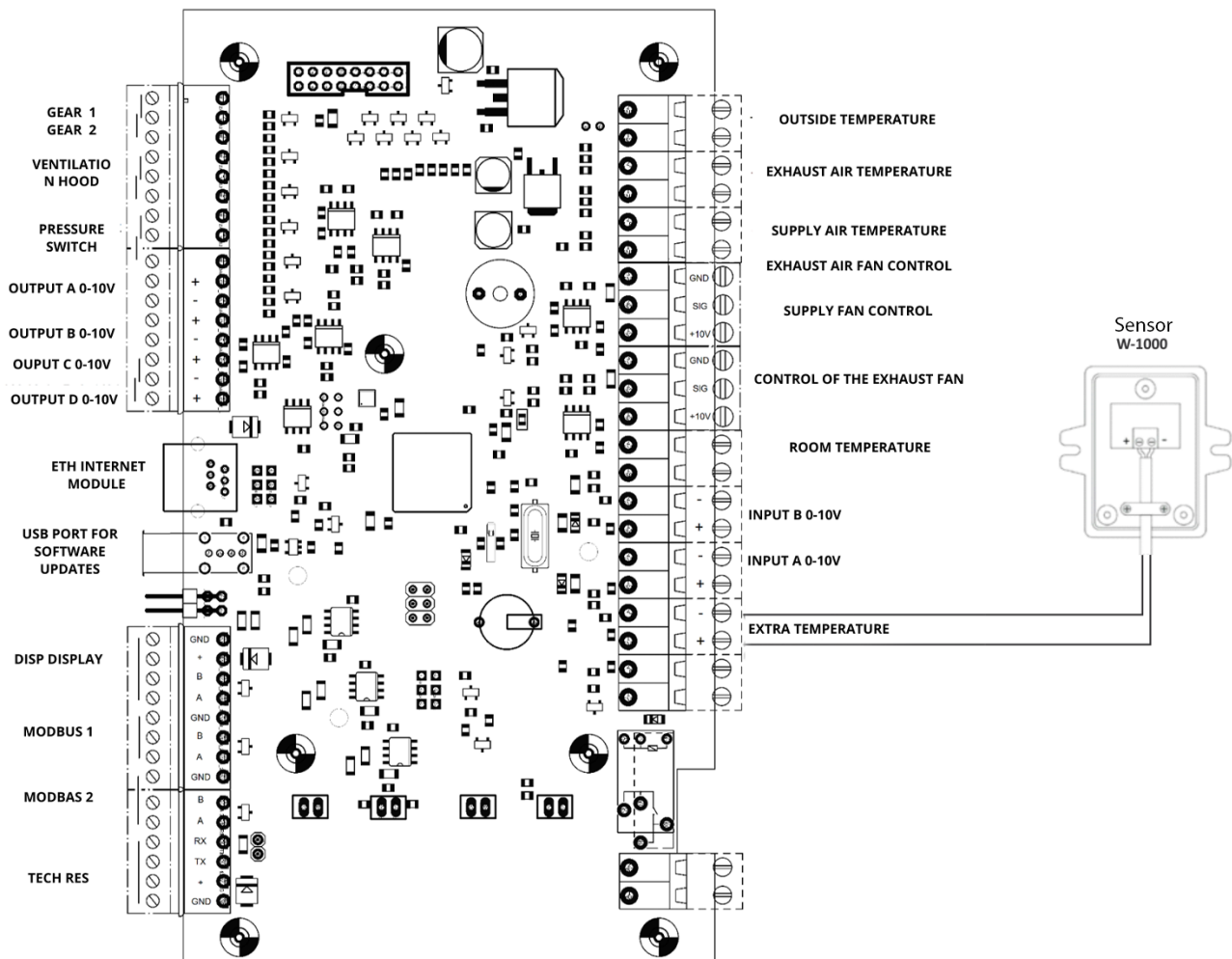
5.1. Connection of the WANAS Water Heater/Cooler for Both Heating and Cooling



5.2. Connection of the WANAS Water Heater/Cooler with Ground Water Collector (GWC)



5.3. Connection of the EXTRA TEMP or W-1000 Temperature Sensor



WARRANTY

- The manufacturer provides a 24-month warranty for the proper operation of the device.
- The warranty is valid from the date of purchase by the user.
- The warranty is granted and valid upon presentation of the purchase document for the unit.
- The warranty does not cover defects resulting from improper use, maintenance, or installation of the device.
- The cost of unjustified service calls is to be borne by the claimant.
- The company does not provide a warranty for the cooling unit. The warranty is the responsibility of the installer; the supplier only provides spare parts.
- The company provides service within Poland.
- Service requests should be submitted through the form available in the "Downloads" section on the website www.wanas.pl.