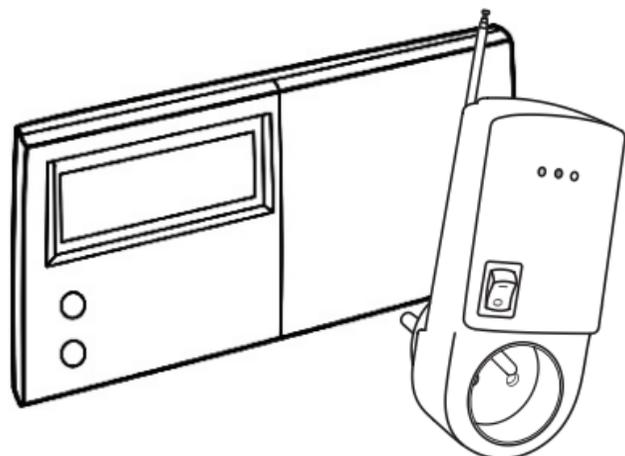


AURATON 2005



**AURATON
2005 TX Plus**

**AURATON
2005 RX Plus**

Communication code of AURATON 2005 TX Plus can be manually set by user.

The factory set communication code is "085".

If there are troubles with communication between AURATON 2005 TX Plus and RX Plus the code can be changed (Manual, page 41).

1. Installation instructions

AURATON 2005

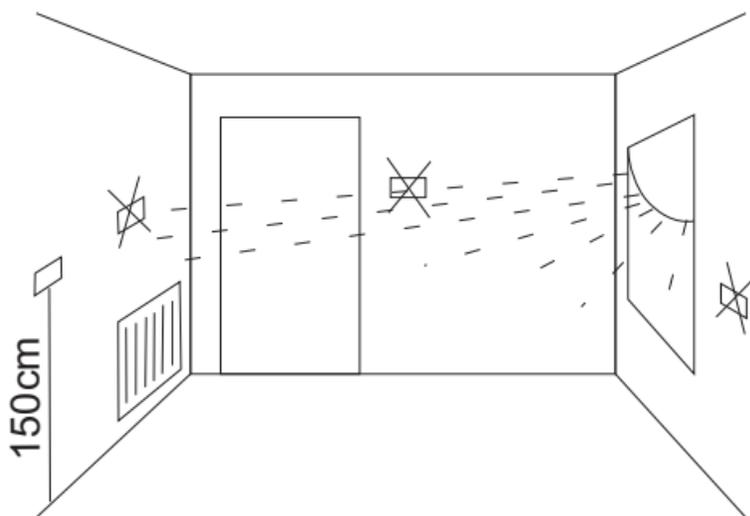
Caution: Switch off the electric source before installing the thermostat. We recommend that the installation should be performed by a trained personnel.

1.1 Select a suitable location for the **AURATON 2005**.

The location of the thermostat can greatly affect its performance. If it is located at where circulate air cannot reach, or exposed to direct sun light, it will not adjust the room temperature properly.

To ensure proper operation, the thermostat should be installed at an inside wall with freely circulating air. Find a place where your family usually occupied.

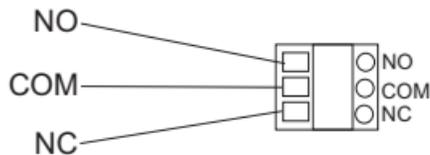
Avoid close to some heat generating appliance (e.g. TV, heater, refrigerator) or exposed to direct sun light. Do not install near a door where the thermostat will suffer from vibration.



PROPERLY INSTALLED THERMOSTAT
AURATON 2005

1.2 Wiring **AURATON 2005**

Wiring terminals are at the back of the thermostat. Press down the terminal cover, you can find three terminals which labelled COM, NO and NC. It is a typical single-pole, double throw (SPDT) contact. In most COM and NO are used.



1.3 Mounting the thermostat **AURATON 2005**

Use the template provided, drill two $\varnothing 6$ mm holes on the wall. Insert the wall anchors and tighten the left screw with 3mm clearance.

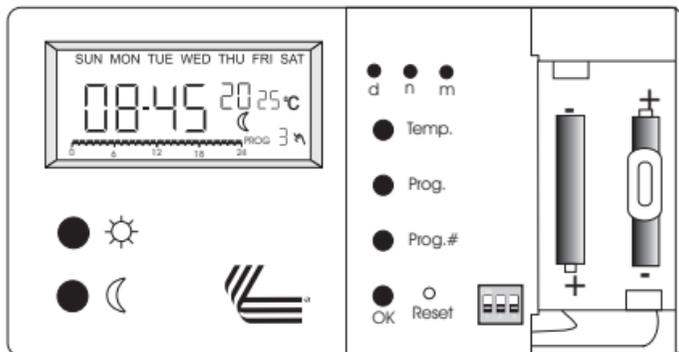
Fix the thermostat by putting it over the screwhead and slide it rightward (note the keyhole like opening at the back of the thermostat). Tighten the remain screw to lock it in place.

Note:

If the wall is made of wood, there is no need to use the wall anchors. Drill two $\varnothing 2.7$ mm holes instead of $\varnothing 6$ mm.

2. Familiar with your **AURATON 2005** **AURATON 2005 TX Plus**

2.1 Appearance

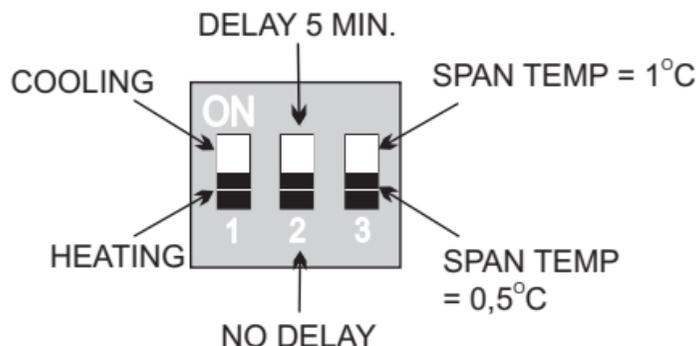


There is a sliding front cover at the right of the thermostat. If you open the cover, you can see some buttons. This cover is removable for the replacement of batteries. To rise up the sliding cover, you can see the dip switch.

2.2 Temperature mode

You can see "☀" and "☾" on both the buttons and the LCD. "☀" indicates comfort temperature and "☾" indicates economy temperature. These two temperatures are user changeable. Furthermore, there is a fixed defrost temperature (7°C) indicated by "❄" on the LCD. Throughout the operation of the thermostat we will refer them as comfort, economy or defrost temperature instead of numeric values.

2.3 Dip switches

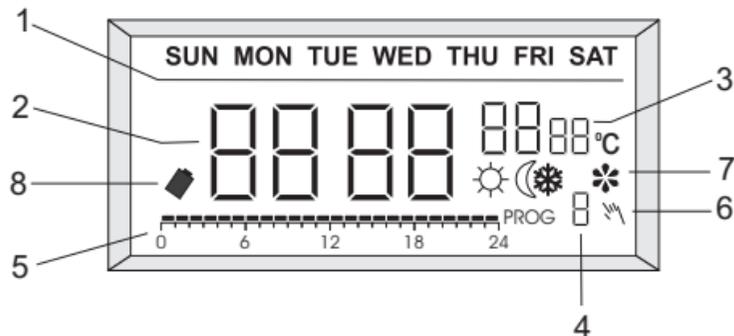


If you remove the front cover, you can find three small switches (dip switches). These three switches are used to control the span, output-on delay and heat/cool system. Span is the temperature (1°C or $0,5^{\circ}\text{C}$) difference between the turn on temperature and turn off temperature.

2.4 Program

AURATON 2005 or **AURATON 2005 TX Plus** is a programmable thermostat. It can automatically adjust the room temperature to a comfortable level when you are at home, and lower it to save energy when you go out or sleep. What you have to do is to program the thermostat so that it knows when to raise the temperature. There are altogether nine programs contained in the memory of the thermostat. Six of them are preset in the factory and the remaining three are user changeable.

2.5 LCD



- 1 - Day of the week Indicator
- 2 - Time
- 3 - Temperature
- 4 - Program Number
- 5 - Program Profile Indicator
- 6 - Manual Override Indicator
- 7 - Output-On Indicator and temperature Mode Indicator
- 8 - Low Battery Indicator

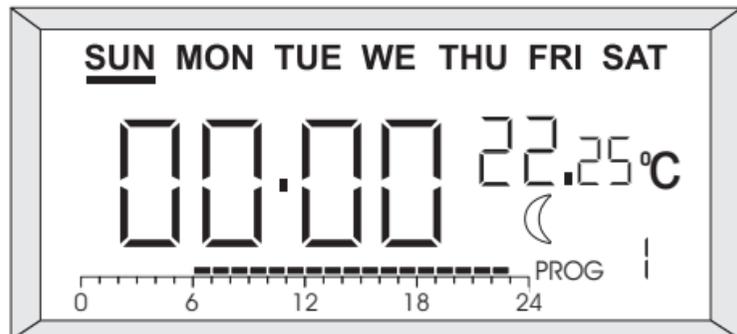
Note:

- A. The output-on indicator will be displayed if the output is on. It will disappear if the output is off.
- B. The low battery indicator will be displayed if the voltage of the batteries drop to a certain level. Please change the batteries as soon as possible.

2.6 Start

The thermostat is operated by two LR6 alkaline batteries. Please remove the front cover and install two new batteries. When the batteries are installed, the thermostat should be operating and you can see the LCD active. If the thermostat does not work properly, please check the batteries for wrong polarities and press the reset button by a ball-point pen.

The LCD after start or reset.

**Note:**

- A. Temperature may not be 22.25°C as the diagram shown and the Output-On indicator may active after a few seconds, depend on different situations.
- B. Do not use a pencil to push the reset button. The graphite residue of a pencil can cause short circuit and damage the thermostat.

2.7 Set day/time

To set day, press "d" button. Similarly, press "h" button to set hour and "m" button to set minute.

Example: When start or after reset, the time is 00:00, Sunday. To set the clock to current time (e.g., 11:23, Tuesday), press "d" 2 times, "h" 11 times and "m" 23 times.

Note: When you press and hold the keys for 2 seconds the day/time will change rapidly. Release when the desired setting comes.

2.8 View/Change temperature

Press Temp, the thermostat enter View/Change temperature mode. The LCD will show the setting of the current temperature mode (,  or ) which will be flashing. Press button "" or "" button to review or change the temperature. Press OK will directly return to normal operation mode.

Note:

- A. The temperature setting range is 5 to 30°C.
- B. To lower the setting, enter View/Change temperature mode and press "" or "" until it reaches 30°C and then the setting will return to 5°C. Continue to press until the desired setting comes.
- C. Press and hold the keys, the setting will change rapidly.
- D. Please note the temperature mode indicator. A "" means the comfort temperature is being viewed or changed.
A "" indicates economy temperature. If "" is shown, it is defrost temperature. Defrost temperature is always at 7°C and is not changeable.
- E. It is not always necessary to use OK key to return to normal operation mode. After 15 seconds of no key pressed it will automatically return to normal mode.

2.9 View/Change programs

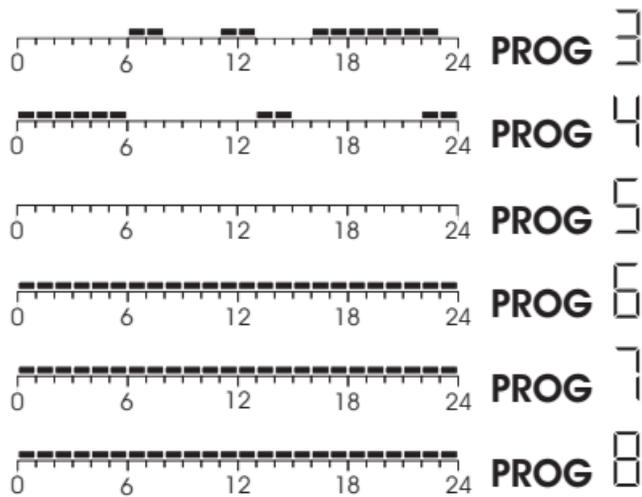
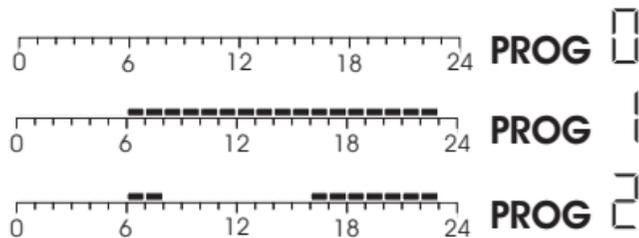
Press "Prog" button, the program of the current day is ready to be changed.

Press "Prog" button again can advance to the next day and the program of that day will be shown.

Press "Prog#" button to change the program.

Programs 6, 7 and 8 are user-define programs. You can use "☀" or "☾" to change the distribution of comfort or economy temperature and h to review the setting. Press OK can return to normal operation mode.

There are altogether nine programs available, as the diagram shown:

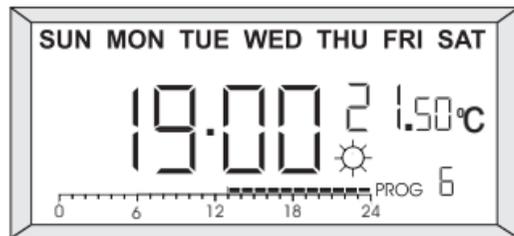


Program 0 is a special program. It will set the whole day to defrost temperature (7°C). (If cooling mode is selected, it will turn off the system). Programs 1, 2, and 3 are some typical schedule of a day. You can select them if you found them suitable. Program 4 set the whole day to comfort temperature while program 5 set it to economy. Programs 6, 7 and 8 are user-define programs. They can be modified to suit your need.

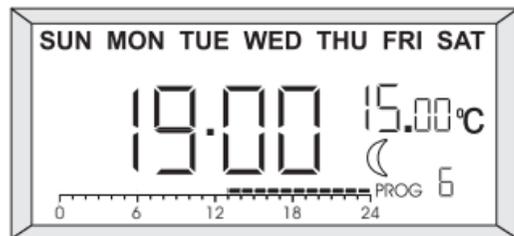
Example:

- A. Assume you want to assign program 6 to Saturday and want to set the whole day to economy temperature except 13:00 to 18:00. Press "Prog". The thermostat enters program mode and the program of the current day (e.g., Tuesday) is ready to be programmed. The display shows the program for Tuesday is program 1, the temperature for 00:00 is economy temperature and is 15°C. (The flashing cursor is the time to be edited)
- B. Press "Prog" 4 times. The day indicator will point to Saturday:
- C. Press "Prog#" 5 times to change the program from program 1 to program 6
- D. Now you can set the time shown to economy temperature by pressing "C" or press "☀" to set it to comfort temperature. Or you can use "h" key to pass through the time without changing the setting.

Since we want to set 13:00 to 18:00 to comfort temperature and the remains to economy temperature, press 13 times. 00:00 to 12:00 will be programmed to economy temperature
Press "h" or "☀" 6 times to move the flashing point to 19:00:



- E. Finally, press "C" 5 times to set the remains of the day to economy temperature:



- F. Press OK or leaving no key pressed for 15 seconds, the thermostat will return to normal operation mod.

Note: Programs 0, 1, 2, 3, 4, 5 are preset programs. "☀" and "°C" cannot be used to edit them. But "h" key is still active.

2.10 Manual Override

Method **no. 1:**

Press "☀" to select comfort temperature. Press "°C" to select economy temperature. The current temperature mode will be overrode until the next set point of the program comes. Press OK to clear overrode.

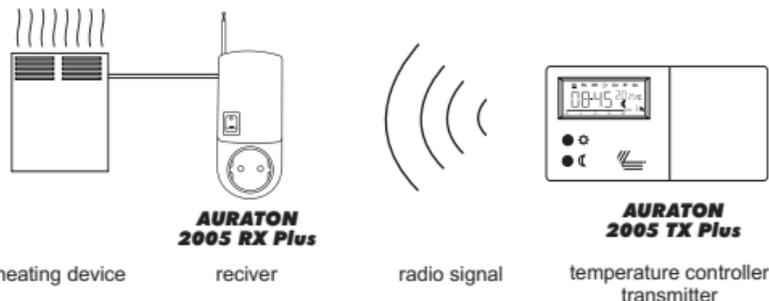
Method **no. 2:**

Press "☀" or "°C" and hold for 2 seconds. "01" will appear on the LCD. It means that manual override will be forced for one hour. The number of hours (from 1 to 24) can be set by pressing/holding the button.

3. Installation instructions

AURATON 2005 TX RX Plus

Programmable Temperature Controller **AURATON 2005 TX Plus** is almost the same product as **AURATON 2005**. The only difference is way of transmitting on/off signal. **AURATON 2005 TX Plus** uses radio waves. That eliminates wires between **AURATON 2005 TX Plus** and controlled device. Receiver of radio waves is module called **AURATON 2005 RX Plus**. Range of **AURATON 2005 TX Plus** is very high but depends on materials that house is made of. **AURATON 2005 TX Plus** with **AURATON 2005 RX Plus** module is capable to hold range of over 100mtrs outdoor and up to 30mtrs indoor.



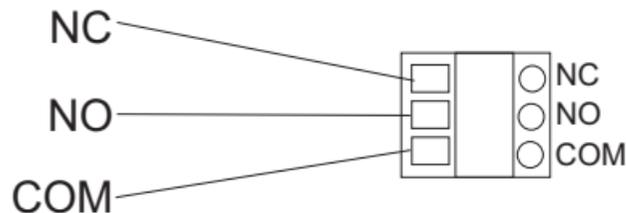
3.1 Connecting **AURATON 2005 RX Plus** to a heating device

Warning:

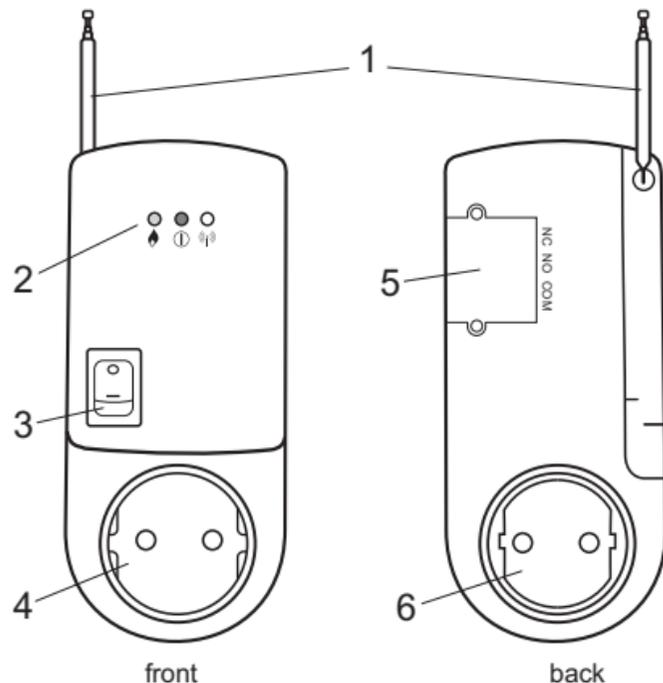
Unplug heating device from power supply before mounting receiver.

Find connectors on the back of **AURATON 2005 RX Plus** under the plastic cover.

In most cases connect heating device to NO and COM connectors.



4. Appearance of **AURATON 2005 RX Plus**



1. Antenna for communication with **AURATON 2005 TX Plus**.
2.  green LED – indicates operating status of heating device
 red LED – indicates power supply status of **AURATON 2005 RX Plus**
 yellow LED – indicates communication status with **AURATON 2005 TX Plus**
3. Additional electric socket switch
4. Additional electric socket – can be used to supply any 230VAC device (MAX.5A).
5. Plastic connectors cover
6. 230VAC plug

5. Turning on **AURATON 2005 TX RX Plus** for the first time

1. Insert new ALKALINE batteries in **AURATON 2005 TX Plus**
2. Plug in **AURATON 2005 RX Plus** and wait 10 minutes to achieve full range by transmitter
3. Yellow LED indicates that transmitter is within receivers range . LED blinks once a minute. The transmitter is out of range (or batteries of **AURATON 2005 TX Plus** are low) if LED blinks every second or does not blink. The factory set communication code is „085“. If there are troubles with communication code can be changed – see chapter no. 6.
4. Red LED indicates that receiver **AURATON 2005 RX Plus** is supplied with 230VAC.
5. Green LED indicates that heating device is on.

Notes:

If **AURATON 2005 RX Plus** will not receive ON/OFF signal from **AURATON 2005 TX Plus** for 5 minutes (cycles) the heating device will be turned off. System will return to its normal operation after interfere disappear. **AURATON 2005 TX Plus** sends digital signals that is why many other devices can work within its range without interfere.

6. Setting communication code

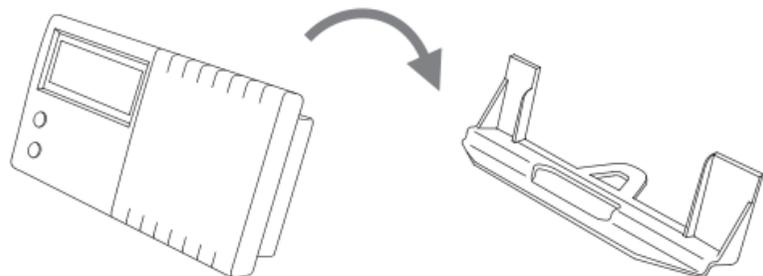
There is a factory set communication codet - „085”. In case of interfere with other device (e.g. another **AURATON 2005 TX Plus**) preset code can be changed:

1. Unplug **AURATON 2005 RX Plus** from 230VAC for few seconds, then plug it in again.
2. Hold „PROG#” button for about 2 seconds. Factory set code „085” will apear on the LCD.
3. Press „PROG#” button again to change code.

4. Choose any code between 001 and 255 and press „OK”
5. Receiver stores new code - yellow LED on **AURATON 2005 RX Plus** will blink a few times.
6. If receiver will not confirm new code (yellow LED will not blink) the procedure must be repeated.

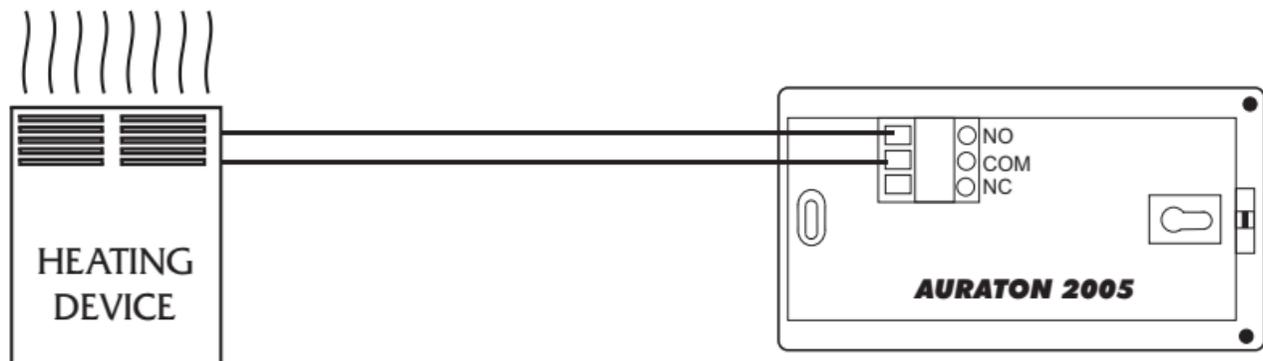
7. Plastic holder for Auraton 2005 TX plus

There is a plastic holder for **AURATON 2005 TX Plus** in the box.

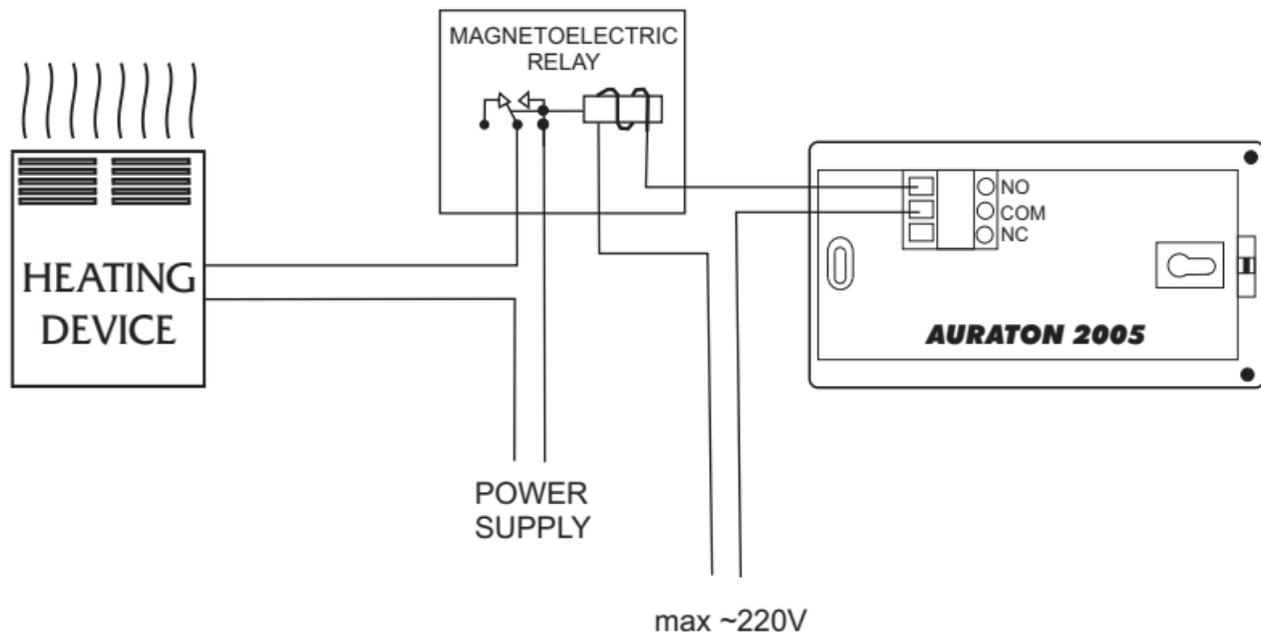


8. How to connect AURATON 2005

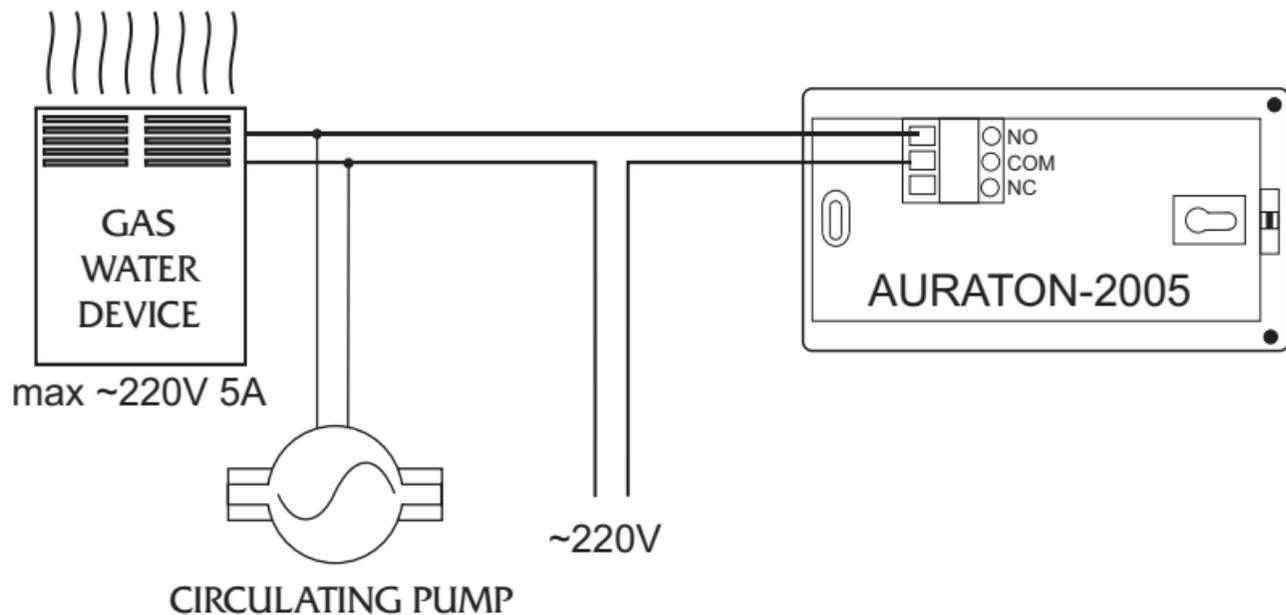
8.1 How to connect **AURATON 2005** directly to a heating device.



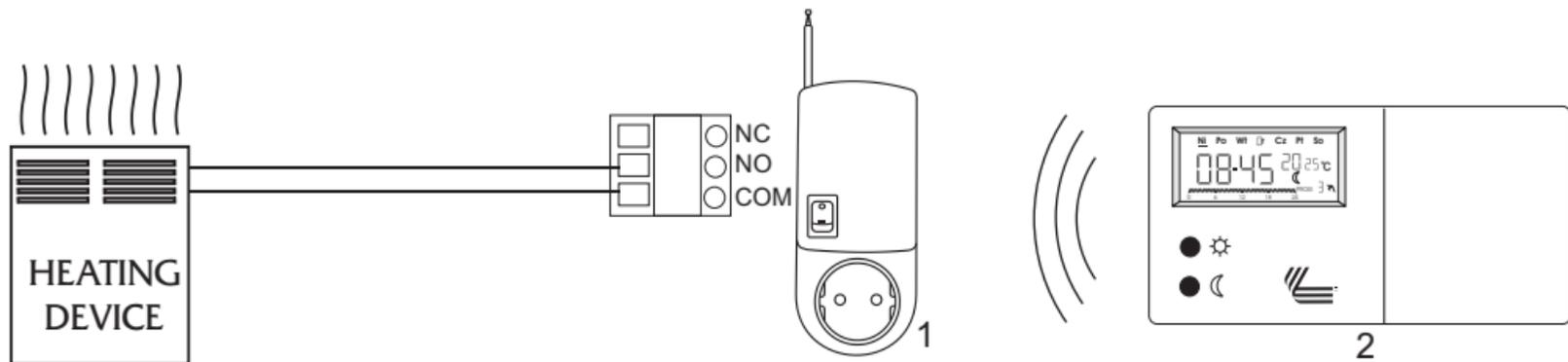
8.2 How to connect **AURATON 2005** to single-phase heating device with working load exceeding 5A through magnetoelectric relay.



8.4 How to connect **AURATON 2005** directly to gas water heating device powered by $\sim 220V$ and equipped with circulating pump.



8.5 How to connect **AURATON 2005 TX RX Plus** with a heating device



1. **AURATON 2005 RX Plus** (receiver)
2. **AURATON 2005 TX Plus**

9. Specification

1. Temperature measurement range
0-34.75°C (0,25°C step)
2. Temperature control range
5-30°C (0,25°C step)
3. Temperature accuracy
+/- 1°C
4. Clock accuracy
+/- 70 seconds/month
5. Program
6 preset, 3 user-define
6. Switching span
0,5°C or 1°C
7. Control mode
Heating or Cooling system
8. Minimum air-con. cycle time
5 minutes
9. Switching
230VAC 50Hz 5A resistive
10. Dimensions
154 x 80 x 30 (mm) (W x H x D)
11. Operation temperature
0 - 45°C
12. Storage temperature
-20 - 60°C
13. Operating humidity
5 - 90% non-condensing