# **COMPUTHERM Q5RF**

# Multi-zone wireless (radio-frequency) digital room thermostat



NEW, IMPROVED VERSION

# Operating instructions

You can watch the most important aspects of the usage of this thermostat on our video presentation at www.computherm.info

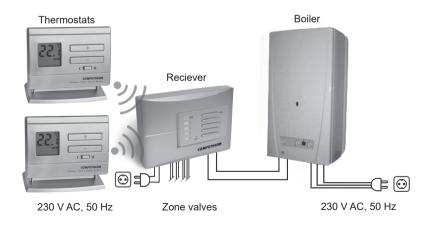
#### GENERAL DESCRIPTION OF THE THERMOSTAT

The **COMPUTHERM Q5RF** type switched-mode room thermostat is suitable to regulate the overwhelming majority of boilers and air conditioners. It can easily be connected to any gas boiler having a two-wire thermostat connection point and to any air conditioning apparatus or electrical apparatus, regardless of whether it has a 24 V or 230 V control circuit.

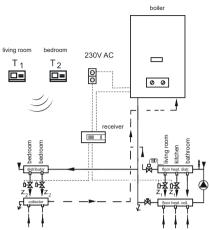
The basic package of the device includes two **COMPUTHERM Q5RF (TX)** thermostats and a receiver unit. If required, the equipment can be extended by two additional **COMPUTHERM Q5RF (TX)** or **Q8RF (TX)** thermostats. The receiver unit receives switching signals from the thermostats, controls the boiler (or air conditioner) and gives commands to open/close the heating zone valves (max. 4 zones, loadability of the zone outputs: 230 V AC, max. 2 A (0.5 A inductive load)) associated with the thermostats.

The zones can operate independently from each other or, in case of need, all zones can operate at the same time. This way only those rooms are heated at a given time, where it is required (e.g. the living room and the bathroom during the day, and the bedroom during the night). To control more than 4 zones at a time we recommend using 2 or more **COMPUTHERM Q5RF** thermostats (1 **Q5RF** thermostat is needed per 4 zones). In this case, the potential-free connection points controlling the boiler (NO - COM) should be connected to the heater / cooler device in parallel and the zone outputs work separately.

Because there is a wireless (radio-frequency) connection between the thermostats and the receiver, no cable is required between the thermostats and the boiler. The installation and connection of the receiver unit is described in *Section 7*.



An example of dividing the heating system into zones is shown in the figure below:



Temperature can be measured and set more precisely as compared to simple, conventional thermostats. In heating mode, in accordance with the selected switching sensitivity, the thermostat switches the boiler or any other appliances on and off below and above the adjusted temperature, respectively, and contributes to reduce energy costs while maintaining comfort. In cooling mode it switches exactly the opposite way.

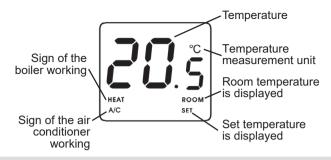
To increase the lifetime of the batteries, the thermostat will not transmit signals continuously. Instead it will repeatedly transmit the actual signal every 5 minutes. Therefore, the regulation of the heating or cooling will continue even after a blackout.

### The portability of the thermostat offers the following advantages:

- no need to lay a cable, which is especially advantageous when old buildings are being modernized.
- · the optimal location of the device can be selected during operation,
- it is also advantageous when you intend to locate the thermostat in different rooms in the course of the day (e.g. in the living room during the day but in the bedroom at night).

The effective range of the transmitter incorporated in the thermostat is approximately 50 m in open terrain. This distance may become considerably shorter within a building, especially when a metal structure, reinforced concrete or adobe wall stands in the way of radio waves.

# The information shown on the liquid crystal display of the thermostat includes the following:



This wireless (radio-frequency) thermostat can also be easily extended with the **COMPUTHERM Q1RX** socket if needed, with which the thermostat is able to control boilers or any other electrical devices operating on 230 V (50 Hz; max. 16 A) (e.g. fan heaters, pumps, zone valves, etc.) according to the room temperature. (You can find detailed information and recommended usage of the **COMPUTHERM Q1RX** socket on our website: www.computherm.info/en)

#### 1. LOCATION OF THE DEVICE

The thermostat of the **COMPUTHERM Q5RF** type device can be freely moved in your residence. It is reasonable to locate it in a room used regularly or for many hours per day so that it is in the direction of natural ventilation in the room but protected from drought or extreme heat (e.g. direct sunlight, refrigerator, chimney, etc). Its optimal location is 0.75 - 1.5 m above floor level. Do not use in wet, chemically aggressive or dusty environment. They can be placed on its own stand or can be mounted on a wall.

<u>IMPORTANT WARNING!</u> If the radiator valves in your flat are equipped with a thermostatic head, adjust it to maximum temperature or replace the thermostatic head of the radiator valve with a manual control knob in the room where the room thermostat is to be located, otherwise the thermostatic head may disturb the temperature control of the flat.

# 2. PUTTING THE THERMOSTAT INTO OPERATION

To put the thermostat into operation, detach the rear panel of the thermostat from the front panel by pressing the lock on the upper side of the housing of the thermostat, as shown in the figure.

The battery compartment is in the inner side of the front panel of the housing. Insert 2 AA **alkaline** batteries (LR6 type) in accordance with the diagram in the battery compartment.



<u>Warning!</u> Good quality alkaline batteries may only be used for this appliance. Carbon-zinc batteries known as durable or long life batteries and chargeable accumulators are not suitable for the operation of this appliance. Icon bR appearing on the display to indicate low battery voltage warns reliably that the batteries should be replaced only when **good quality alkaline batteries** are used.

After the batteries have been inserted, the display flashes the measured room temperature. (If this information fails to appear on the display, press the "RESET" button located on the main panel of the thermostat.

#### 3. BASIC SETTINGS

After removing the rear panel of the device, the following factory default settings can be modified by relocating the jumpers (black plugs) and/ or changing the position of the orange-colored potentiometer located on the main panel.



# 3.1 Selecting the Displayed Temperature

The temperature(s) to be shown on the display can be selected and set by the left jumper.

With factory default settings the jumper is located on the central and uppermost pins, in which case the display shows the currently measured room temperature value, while the notice "ROOM" appears in the bottom right corner of the display. In this case, the adjusted temperature is visible only during the adjustment process, for approximately 6 seconds after the last button has been pushed. By relocating the plug onto the bottommost and central pins the displayed temperature can be modified so that the display alternately shows the current room temperature and the adjusted temperature for 3-3 seconds, respectively. In this mode, the notices "ROOM" and "SET" are alternately shown under the currently displayed temperature in the bottom right corner of the display, indicating whether the display shows the room temperature or the adjusted temperature value.

# 3.2 Selecting the Switching Sensitivity (Accuracy)

The switching sensitivity of the thermostat can be selected or adjusted by the central jumper which determines how much the thermostat switches the connected appliance on / off below / above the set temperature.

With factory default settings the jumper is located on the central and uppermost pins, resulting in a switching sensitivity of  $\pm 0.2$  °C. It can be modified to  $\pm 0.1$  °C by relocating the jumper onto the bottommost and central pins. A smaller switching sensitivity results in steadier room temperature and therefore in higher comfort. The heat loss of the room (building) does not depend on the switching sensitivity.

If higher comfort is needed, the switching sensitivity should be set so that it provides a steadier room temperature. On the other hand, please also take into account that the boiler should not switch on and off multiple times in an hour's time except at low outside temperatures (e.g. -10 °C), since the frequent on and off switches of the boiler reduce its efficiency and hence increases the gas consumption. We recommend using the  $\pm 0.1$  °C switching sensitivity for heating systems with high thermal inertia (e.g. underfloor heating), and the  $\pm 0.2$  °C switching sensitivity (factory default setting) for heating systems with low thermal inertia (e.g. flat panel radiators). You can read more about switching sensitivity in Chapter 5.

## 3.3 Switching between the Heating and Cooling Mode

The heating or the cooling mode of the thermostat can be selected by the right jumper.

With factory default settings the jumper is located on the central and uppermost pins, which selects the heating mode. By relocating the jumper onto the bottommost and central pins, the cooling mode can be selected. The **NO - COM** and the zone outputs of the receiver unit **are turned on below the set temperature in heating mode**, **and they are turned off above the set temperature in cooling mode** (taking the switching sensitivity into account).

<u>ATTENTION!</u> If the modification of the basic settings was done after inserting the batteries and the modifications did not take effect, please press the "**RE-SET**" button located on the main panel of the thermostat.

#### 3.4 Calibration of the thermometer of the thermostat

You can calibrate the thermometer of the appliance (to correct measured temperature). To this end all you have to do is change the position of the orange-colored potentiometer by a Phillips screwdriver. When you adjust the potentiometer clockwise then the displayed temperature will be lower than that measured initially, and when you adjust it anticlockwise the displayed temperature will be higher than that. The displayed temperature can be adjusted within a range of approx.  $\pm 4$  °C.

Correction of the displayed temperature takes place a few seconds after the adjustment.

# 3.5 Synchronising the Thermostat and the Receiver Unit

In order to have a safe, reliable and trouble-free wireless (radio-frequency) connection, both the thermostat and the receiver unit have their own safety codes. After installing the receiver unit, the two units should be synchronised by pressing the "LEARN" button located on the main panel of the thermostat. Therefore do not replace the rear pan-



el of the thermostat onto the front panel before synchronisation. The process of synchronisation is described in *Section* **7.2**.

#### 4. SETTING THE DESIRED TEMPERATURE

After putting the thermostat into operation and adjusting the basic settings the thermostat is ready for operation and the adjustment of the temperature can be started.

Below the temperature adjustment buttons ( ) and the comfort (\$\frac{\times}{2}\$) positions of the switch a different temperature can be set between 5 °C and 40 °C, in steps of 0.5 °C.



For energy efficiency it is recommended that the comfort temperature is only used those times, when the room or building is in use, because every 1 °C decrease of temperature saves approximately 6% energy during a heating season.

The factory default temperature is 18 °C for the economy (**(**()) position and 20 °C for the comfort (☆) position. These default temperatures can be changed as follows:

- Move the switch according to the temperature you would like to change (economy (( ) or comfort (☆)).
- Press the \_\_\_\_\_ button, after which the notice "ROOM" disappears, the notice "SET" (adjusted value) appears in the bottom right corner of the display. Meanwhile, the temperature value shown on the display switches from room temperature to the default temperature (18.0 °C/20.0 °C) or to the last set temperature (this temperature is blinking on the display). By pressing the buttons repeatedly or continuously (the change in values is accelerated), the desired temperature to be maintained at the place where the thermostat has been installed can be set in steps of 0.5 °C.
- Approximately 6 seconds after setting the room temperature to be maintained, the device automatically switches to normal mode. The notice "SET" disappears from the bottom right corner of the display, and once again the current room temperature and the notice "ROOM" are displayed.
- The previously set temperature can be freely changed any time using the \_\_\_\_ and \_\_\_ buttons. Always the last set temperatures are in effect.

### 5. OPERATION OF THE INSTALLED THERMOSTAT

The thermostat controls the device connected to it (e.g. gas boiler or pump) based on the temperature measured by it and the currently set temperature, taking into account the switching sensitivity of the thermostat (factory default  $\pm 0.2~^{\circ}\text{C}$ ). This means that if the thermostat is set to heating mode and 22  $^{\circ}\text{C}$ , then with a switching sensitivity of  $\pm 0.2~^{\circ}\text{C}$  the connection points NO and COM of the receiver output relay are closed below 21.8  $^{\circ}\text{C}$  (heating is turned on) and 230 V AC is displayed on the output for that zone and NO and COM opened at temperatures above 22.2  $^{\circ}\text{C}$  (heating is turned off) and the 230 V AC voltage at

its output for that zone is turned off. In cooling mode, the relay switches exactly the opposite way.

The status of the zone outputs is indicated by the "HEAT" (heating) or "A/C" (cooling) icon in the lower left corner of the devices display, depending on the selected operating mode.

After setting the economy and comfort temperatures, the temperature desired at the moment can be selected using the switch.

# **5.1 Economy Mode (()** (left hand position of the switch)

In the left hand position of the switch, the thermostat provides the set economy temperature (e.g. night temperature) to be maintained at the place where the thermostat has been installed.

# **5.2 Comfort Mode (☼)** (right hand position of the switch)

In the right hand position of the switch, the thermostat provides the set comfort temperature (e.g. daytime temperature) to be maintained at the place where the thermostat has been installed.

#### 6. BATTERY REPLACEMENT

The average lifetime of the batteries is 1 year. The icon bR alternately replacing the temperature value on the display indicates low battery voltage. Replace the batteries whenever the icon bR indicating low battery voltage appears on the display (see Section 2). After battery replacement, the desired temperature should be adjusted again, because during the battery replacement the thermostat is reset to factory default settings.

<u>Warning!</u> Good quality alkaline batteries may only be used for this appliance. Carbon-zinc batteries known as durable or long life batteries and chargeable accumulators are not suitable for the operation of this appliance. Icon *b*? appearing on the display to indicate low battery voltage warns reliably that the batteries should be replaced only when **good quality alkaline batteries** are used.

### 7. THE RECEIVER UNIT

### 7.1 Installation and connection of the receiver unit

<u>WARNING!</u> The device must be installed and connected by a qualified professional. Before installing, make sure that that neither the thermostat nor the device to be controlled is connected to the 230 V mains voltage. Modifying the thermostat can cause electric shock or product failure.

**WARNING!** We recommend that you design the heating system you want to control with the **COMPUTHERM Q5RF** thermostat so that the heating medium can circulate in the closed position of all zone valves when a circulating pump is switched on. This can be done with a permanently open heating circuit or by installing a by-pass valve.

**WARNING!** In switched on state 230 V AC voltage appears on the zone outputs, the maximum loadability is 2 A (0.5 A inductive). This information should be considered during installation.

The receiver unit of **COMPUTHERM Q5RF** thermostat should be mounted on the wall in a place protected from dripping water, dusty and chemically aggressive environment, extreme heat and mechanical damage. When choosing the location of the receiving unit you should remember that bulky metal objects (e.g. a boiler, buffer tank, etc.) and metal building structures may have an adverse effect on propagation of radio waves. If it is possible, in order to ensure trouble-free RF connection, we recommend that you install the receiving unit at a height of 1.5 to 2 m and at a distance of 1 to 2 m from the boiler or other bulky metal constructions. We recommend that you check reliability of RF connection at the place selected before installing the receiving unit.

**ATTENTION!** Do not install the receiver unit under the housing of the boiler or near hot pipes because it may damage the parts of the device or compromise wireless (radio-frequency) connection. To avoid electric shock, entrust a specialist with connecting the receiver unit to the boiler!

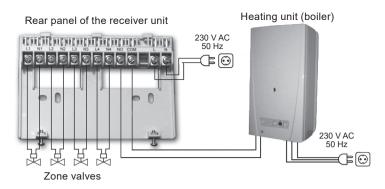
Unscrew the two screws at the bottom of the receiver unit without removing them. Following this, remove the front panel of the receiver unit then fix the back panel to the wall in the vicinity of the boiler with the screws provided. Remove the protective carton from the contacts to ensure perfect contact.

The marks of the connections are pressed into the plastic above the connection points:

#### L1 N1 L2 N2 L3 N3 L4 N4 NO COM L N

230 V mains voltage should be supplied to the receiver unit. This provides the power supply for the device, but this voltage does not appear on the connection points of the relay that controls the boiler (**NO** and **COM**). We propose to connect the neutral wire of the network to point **N**, while the phase conductor to point **L**. It is not necessary to connect a ground wire because the product is double insulated. We recommend to de-energize the device when heating is continuously not needed (e.g., during summer).

The receiver unit controls the boiler or air conditioner through a potential-free relay whose connection points are: **NO** and **COM**. Connect the two connection points of the heating or cooling equipment to be controlled to terminals **NO** and **COM**, i.e. to the normally open terminals of the relay, as shown in the figure below



The **NO** and **COM** connection points become closed following the heating/cooling command of any thermostat.

If you would like to operate an old boiler or any other device that has no connection points for thermostats, then the connection points **NO** and **COM** of the thermostat should be connected to the mains cable of the device, similarly as a switch would be connected.

<u>ATTENTION!</u> Always consider the loadability of the receiver unit and follow the manufacturer's instructions of the heating or cooling equipment. The device must be installed and connected by a qualified professional!

The voltage appearing at terminals **NO** and **COM** depends only on the system being controlled, therefore the dimensions of the wire are determined by the type of the device to be controlled. The length of the wire is of no significance, the receiver unit may be installed either near the boiler or far away from it, but do not install it under the housing of the boiler.

Beside controlling the boiler, the receiver unit can also open/close the valves of maximum 4 heating zones. Following the heating/cooling command of one of the thermostat, 230 V AC, 50 Hz voltage appears on the connection points of the zone valves associated with the thermostat. The zone valves should be connected to the connection points L1 N1; L2 N2; L3 N3 and L4 N4 of the receiver.

The size of the connection points of the **COMPUTHERM Q5RF** zone controller allow at most 2 or 3 devices to be connected in parallel to any heating zone. If more than this is needed for any of the heating zones (e.g. 4 zone valves), then the wires of the devices should be joined before they are connected to the zone controller.

In case of using electro-thermal zone valves that operate slowly and all the zones are closed when the boiler is inactive, then the boiler should be started with a delay in order to protect the pump of the boiler. In case of using electro-thermal zone valves that operate fast and all the zones are closed when the boiler is inactive, then the valves should close with a

delay in order to protect the pump of the boiler. See Section **7.3** for more information on the delay funcions.

When the two units of the thermostat can only be located on or outside the boundary of the range due to the layout of the building or the shielding effect of the building structures between the units then, in order to guarantee reliable RF connection, please install a **COMPUTHERM Q2RF** type RF transmitter between the two units.

# 7.2 Putting the receiving unit into operation

Turn on the power supply to the receiver unit. A few seconds after the LED lights flash once, the receiver unit becomes ready for operation. This state is indicated by the blue LED with the "A/M" sign. The thermostats and receiver in the basic package are factory sychronized. If the receiver still does not receive commands from one of the thermostat switches or you want to connect additional thermostats to the receiver, you can synchronize a thermostat with the receiver by following the steps below:

In the automatic mode of the receiver (blue LED is lit), press and hold one of the buttons on the receiver (e.g. for zone number 1) (for about 3 seconds) until the LED next to the button flashes red. If you want a thermostat to control more than one zone, you must perform this step for each such zone. After the red LED for each zone with which you want to synchronize the thermostat flashes, press and hold the thermostat "LEARN" button located on the main panel of the thermostat, and keep it depressed (approx. 10 seconds) until the red LED (s) on the receiver do not stop flashing (they go out or light up continuously depending on the temperature set on the thermostat). The receiver then "learns" the transmitters' (thermostats') security code. The safety code will not be lost even during a power outage, the device memorizes it automatically.

After tuned together, the receiver unit receives switching signals from the thermostats, controls the boiler (or air conditioner) and gives commands to open/close the heating zone valves associated with the thermostats. The receipt of switching signals is indicated by the switched on or off state of the red LED associated with the thermostat on the receiver. By repeating the above steps, tune all of the thermostats and the receiver together.

# 7.3 Delay of the outputs

When designing the heating zones - in order to protect the pumps - it is advisable to keep at least one heating circuit that is not closed by a zone valve (e.g. bathroom circuit). If there are no such zones, then in order to prevent the heating system from an event in which all heating circuits are closed but a pump is switched on, the zone controller has two types of delay functions.

### Turn on delay

If this function is activated and the outputs of the receiver are switched off, then in

order to open the valves of the given heating circuit before starting the pump(s), the **NO-COM** output of the receiver switches on only after a delay of 4 minutes from the first switch-on signal of the thermostats, while 230 V appears immediately at the output for that zone (e.g. **Z2**). The delay is especially recommended if the zone valves are opened/closed by slow-acting electrothermal actuators, because their opening/closing time is approx. 4 min. If at least 1 zone is already switched on, then the Turn on delay function will not be activated when additional thermostats switch on.

The active state of the Turn on delay function is indicated by the blue LED flashing with 3-second intervals.

If the "A/M" button is pressed while the Turn on delay is active (blue LED flashes with 3-second intervals), the LED stops flashing and indicates the current operating mode (Automatic/Manual). Then the working mode can be changed by pressing the "A/M" button again. After 10 seconds, the blue LED continues to flash with 3-second intervals until the delay stops.

#### Turn off delay

If this function is activated and some thermostat outputs of zone controller are switched on, then in order to keep the valves belonging to the given zone open during the recirculation of the pump(s), the 230 V AC voltage disappears on the zone output of the given zone (e.g. **Z2**), only after a delay of 6 minutes from the switch-off signal of the last thermostat, while the **NO-COM** output switches off immediately. The delay is especially recommended if the zone valves are opened/closed by quick-acting motorized actuators, as their opening/closing time is only a few seconds. Activating the function in this case ensures that the heating circuits are open during the circulation of the pump and thus protects the pump from overload. This function is only activated when the last thermostat sends the switch-off signal to the receiver.

The active state of the Turn off delay function is indicated by the 3-second interval flashing of the red LED of the last zone switched off.

# Activating/deactivating of the delay functions

To activate/deactivate the Turn on and off delay functions, press and hold the Z1 and Z2 buttons on the receiver for 5 seconds until the blue LED flashes with one second intervals. You can activate/deactivate the functions by pressing the buttons Z1 and Z2. The LED Z1 shows the Turn on delay status, while the LED Z2 shows the Turn off delay status. The function is activated when the corresponding red LED is lit.

To save the settings and return to the default state wait 10 seconds. When the blue LED stops flashing the zone controller resumes the normal operation.

The delay functions can be reset to the factory defaults (deactivated state) by pressing the "**RESET**" button!

# 7.4 Transmission distance inspection

With the help of the \_\_\_\_ and \_\_\_ buttons you can check whether the two units are within the transmission distance of the wireless (radio-frequency) connection. In order to do so, set the desired temperature above room temperature by more than 0.2 °C, then reduce it below room temperature by more than 0.2 °C. When detecting the ON and OFF control signals, the red LED light on the receiver unit switches on and off, respectively. When the receiver unit fails to receive signals sent by the thermostat, then the receiver unit is outside the transmission distance of the wireless (radio-frequency) transmitter, thus they have to be placed closer to each other.

**ATTENTION!** When the two units of the thermostat can only be located on or outside the boundary of the range due to the layout of the building or the shielding effect of the building structures between the units then, in order to guarantee reliable RF connection, please install a **COMPUTHERM Q2RF** type RF transmitter between the two units.

#### 7.5 Manual control of the receiver unit

Pressing the "A/M" button separates the thermostats from the receiver unit. In this case, the boiler or air conditioner connected to the receiver unit can only be turned on and off manually, without any temperature inspection. The continuously illuminated blue LED indicates automatic (thermostat-controlled) mode, while its switched off state indicates manual mode. In manual mode, pressing the 1, 2, 3, and/or 4 buttons of the receiver unit turns on or off the boiler / air conditioner and opens/closes the zone valves associated with the heating zones. The operation of a heating zone is indicated by the illuminated red LED associated with it. By pressing the "A/M" button again, the device quits manual control and resumes automatic (thermostat-controlled) operation, which is indicated by the illuminated blue LED.

#### FREQUENTLY ASKED QUESTIONS

When you think that your appliance is operating incorrectly or encounter any problem while the appliance is being used then we recommend that you read Frequently Asked Questions (FAQ) available on our website, where we collected the problems and questions that most frequently occur while our appliances are being used, along with the solutions thereto:

#### www.computherm.info/en/faq



The vast majority of the problems encountered can be solved easily by using the hints available on our website, without seeking professional help. If you have not found a solution to you problem, please pay a visit to our qualified service.

Warning! The manufacturer does not assume responsibility for any direct or indirect damages and loss of income occurring while the appliance is being used.

#### PRODUCT INFORMATION DATA SHEET:

• Trademark: **COMPUTH€RM** 

Model identifier: Q5RF

Temperature control class: I. class

Contribution to the efficiency of seasonal space heating: 1%

#### Remark:

In addition to using modern temperature regulators, the following up-to-date regulation methods also contribute significantly to the improvement of the comfort provided by the heating network, the energy efficiency of the heating network and the coefficient of performance:

- By dividing the heating network into sections or zones and with their separate regulation
  we can ensure that every room (zone) is heated only when it is necessary. (You can
  obtain information on the establishment of the heating network and apparatuses and
  fittings needed for division into zones in our publication titled "Energy Savings and
  Comfort" which is also available on our website www.computherm.info).
- Using programmable thermostats you can ensure that every room (zone) is just heated according to a timetable preset in accordance with the demands. (You can obtain information on the services provided by **COMPUTHERM Q7; Q7RF** and **Q8RF** programmable room thermostats on our website).
- Using modern modular heating devices equipped with an external temperature sensor the boiler can be operated at a higher efficiency.
- Using low temperature heating networks (e.g. 60/40 °C) and condensing boilers the temperature of the flue gas leaving the boiler can be reduced, and this way fuel efficiency can be improved significantly.

#### **TECHNICAL DATA**

#### Technical data of the thermostats (transmitters):

temperature measurement range:
 adjustable temperature range:
 5 to 40 °C (in 0.1 °C increments)
 5 to 40 °C (in 0.5 °C increments)

temperature measurement accuracy: ±0.5 °C

- selectable switching sensitivity:  $\pm 0.1$  °C;  $\pm 0.2$  °C - temperature calibration range:  $\pm 0.1$  °C;  $\pm 0.2$  °C approx.  $\pm 4$  °C

- battery voltage: 2 x 1.5 V ALKALINE batteries

(LR6 type; AA size)

power consumption:battery lifetime:approx. 1 year

- protection against environmental impacts: IP30

- operating frequency: 868.35 MHz

**- transmission distance:** approx. 50 m in open terrain

- storage temperature: -10 °C to +40 °C

**- operating humidity:** 5% - 90% (without condensation)

- operating frequency: 868.35 MHz

**– dimensions:** 100 x 80 x 22 mm (without holder)

**- weight:** 80 g

**– temperature sensor type:** NTC 3435 K 10 k $\Omega$  ±1% at 25 °C

#### Technical data of the receiver unit:

- power supply voltage: 230 V AC, 50 Hz

- power consumption: 0.15 W

- switchable voltage of the relay that

controls the boiler: max. 30 V DC / 250 V AC

- switchable current of the relay that

controls the boiler: 8 A (2 A inductive load) - voltage of the zone outputs: 230 V AC, 50 Hz

- loadability of the zone outputs: 2 A (0.5 A inductive load)

duration of activable Turn on delay function: 4 minutes
 duration of activable Turn off delay function: 6 minutes
 protection against environmental impacts: IP30

- storage temperature:
-10 °C - + 40 °C

operating humidity:
 dimensions:
 5% — 90% (without condensation)
 130 x 90 x 32 mm (W x H x D)

**– weight**: 210 g

Total weight of the device: approx. 470 g (2 thermostats +2 holders +1 receiver)

The **COMPUTHERM Q5RF** type thermostat complies with the requirements of directives RED 2014/53/EU and RoHS 2011/65/EU.



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E-mail: iroda@quantrax.hu

Web: www.quantrax.hu • www.computherm.info

Origin: designed in the EU, made in China

Please watch our video presentation of the most important aspects of the usage of this thermostat at our websites!

