COMPUTHERM Q20

COMPUTHERM Q20 Digital Programmable Room Thermostat User Manual

Model: Q20

Introduction	Overview	Setup	Operation	Maintenance & Support	Troubleshooting	Specifications	Warranty

1. INTRODUCTION

The COMPUTHERM Q20 is a versatile digital programmable room thermostat designed for controlling various heating, cooling, humidifying, and dehumidifying systems. This device offers precise control over your indoor climate, ensuring comfort and energy efficiency. It is compatible with most gas boilers, air conditioners, humidifiers, and dehumidifiers that feature a two-wire thermostatic connection, operating on either 24V or 230V control circuits.

This manual provides detailed instructions for the installation, operation, and maintenance of your COMPUTHERM Q20 thermostat. Please read it thoroughly before use to ensure proper functionality and to maximize the benefits of your device.

2. PRODUCT OVERVIEW

2.1. Key Features

- Programmable temperature settings for each day of the week.
- Up to 10 freely selectable switching times per day, or 1 to 99 hours of continuous operation.
- Temporary temperature change function: adjustable for 1 to 99 hours or 1 to 99 days.
- Selectable switching sensitivity for precise control.
- Integrated calibrated temperature sensor and humidity sensor.
- Pump protection function.
- Easy switching between operating modes: heating, cooling, humidifying, and dehumidifying.
- Adjustable maximum humidity setting to prevent condensation in cooling mode.
- Large, backlit display with configurable brightness.
- Acoustic feedback for key presses (can be activated/deactivated).

2.2. Components

The COMPUTHERM Q20 thermostat consists of the main unit with a digital display and control buttons. The back panel

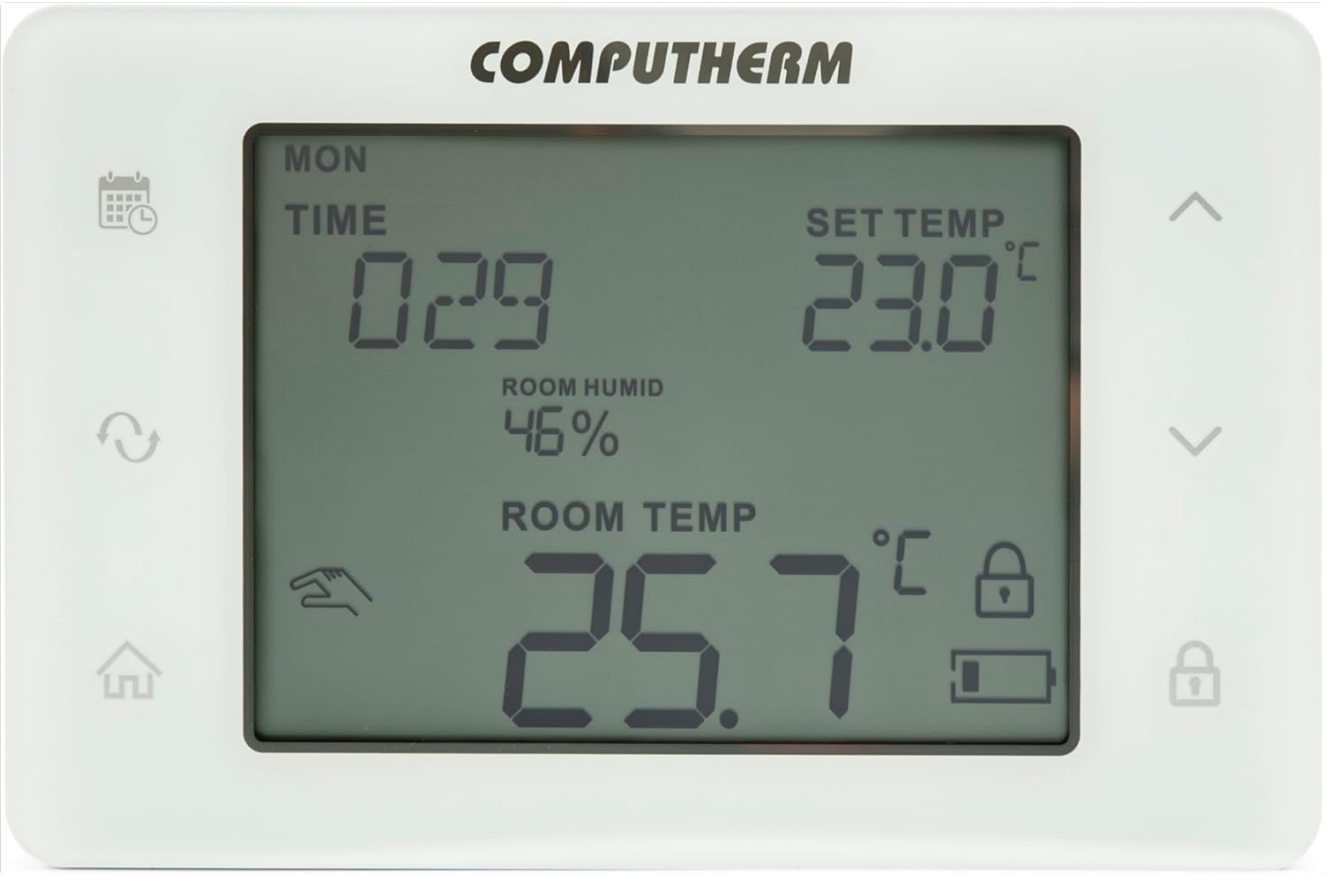includes terminals for electrical connections and a battery compartment.

Figure 1: Front view of the COMPUTHERM Q20 thermostat. The display shows 'MON', 'TIME 0:29', 'SET TEMP 23.0°C', 'ROOM HUMID 46%', and 'ROOM TEMP 25.7°C'. Icons for calendar, refresh, home, up arrow, down arrow, lock, and battery are visible.

3. SETUP

3.1. Installation

The COMPUTHERM Q20 thermostat is designed for easy connection to most heating, cooling, humidifying, or dehumidifying devices. It requires a two-wire thermostatic connection and is compatible with both 24V and 230V control circuits.

1. **Power Disconnection:** Before beginning installation, ensure that the main power supply to your heating/cooling system is turned off to prevent electrical shock.
2. **Mounting:** Mount the thermostat in a central location in the room, away from direct sunlight, drafts, or heat sources that could affect temperature readings.
3. **Wiring:** Connect the two control wires from your heating/cooling system to the appropriate terminals on the back of the Q20 thermostat. Refer to the wiring diagram provided with your specific heating/cooling appliance for correct terminal identification.
4. **Battery Installation:** The thermostat requires 2 AA batteries for operation. Insert them into the battery compartment located on the back of the unit, observing correct polarity.
5. **Power Restoration:** Once wiring and battery installation are complete, restore power to your heating/cooling system.

3.2. Initial Configuration

Upon first power-up or after battery replacement, the thermostat may require initial setup. This typically involves setting the current time and day, and calibrating the temperature and humidity sensors if necessary.

- **Time and Day Setting:** Use the programming button (calendar icon) and up/down arrows to set the correct time and day of the week.
- **Sensor Calibration:** The temperature sensor can be calibrated within a range of ±3 °C (0.1 °C increments) or ±6 °F (0.1 °F increments). Consult the full product manual for detailed calibration steps.
- **Operating Mode Selection:** Use the operating mode button (arrows icon) to switch between heating, cooling, humidifying, and dehumidifying modes.

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4. OPERATING INSTRUCTIONS

4.1. Display Information

The large digital display provides all necessary information at a glance. Refer to the diagram below for an explanation of the display elements:

Figure 4: COMPUTHERM Q20 Display Elements.

Current Day: Indicates the current day of the week (MON, TUE, WED, THU, FRI, SAT, SUN).

Current/Remaining Time: Displays the current time or remaining time for a temporary program.

Programming Button (Calendar icon): Used to access and set daily programs.

Party/Holiday Program Symbol (Calendar with clock icon): Indicates activation of special programs.

Operating Mode Button (Arrows icon): Toggles between different operational modes (Heating, Cooling, Humidifying, Dehumidifying).

Current Program (PROG indicator): Shows when a programmed schedule is active.

Menu Button (House icon): Accesses the main menu or settings.

Symbol for Manual/Continuous Manual Operation (Hand icon): Indicates manual control mode.

Symbol for Heating On (Flame icon): Illuminates when the heating system is active.

Symbol for Cooling On (Snowflake icon): Illuminates when the cooling system is active.

Set Temperature/Humidity (SET TEMP, ROOM HUMID): Displays the desired temperature and humidity levels.

Humidification/Dehumidification Icons (Water drop icons): Indicate active humidification or dehumidification.

Up/Down Buttons (Arrow icons): Used to adjust settings and navigate menus.

Measured Humidity (ROOM HUMID): Shows the current room humidity percentage.

Button for Key Lock (Lock icon): Activates or deactivates the key lock function.

Room Temperature (ROOM TEMP): Displays the current ambient room temperature.

Symbol for Comfort Mode (Sun icon): Indicates comfort temperature setting.

Symbol for Eco Mode (Moon icon): Indicates energy-saving temperature setting.

Key Lock is On (Lock icon with line): Indicates that the keypad is locked.

Symbol for Battery Charge (Battery icon): Shows the current battery level.

4.2. Programming Temperature Schedules

The Q20 thermostat allows for flexible programming to suit your daily routine.

- **Daily Programs:** You can create a unique temperature program for each day of the week. This includes setting specific temperatures for up to 10 switching times per day.
- **Setting Switching Times:** Press the programming button (calendar icon) to enter programming mode. Use the up/down arrows to adjust the time and temperature for each period.
- **Temporary Temperature Change:** To temporarily override the program, adjust the temperature using the up/down arrows. The thermostat will maintain this new temperature until the next programmed event, or for a specified duration (1-99 hours or 1-99 days) if configured.
- **Manual Mode:** Activate manual mode (hand icon) for continuous manual control, bypassing the programmed schedule.

4.3. Humidity Control

The integrated humidity sensor allows for precise humidity management.

- **Humidifying/Dehumidifying Modes:** Select the appropriate mode using the operating mode button.
- **Setting Humidity Levels:** Adjust the desired humidity percentage using the up/down arrows.
- **Condensation Protection:** In cooling mode, you can set a maximum humidity level. If the room humidity exceeds this limit, the cooling output will be deactivated to protect the surface cooling system from condensation.

5. MAINTENANCE

- **Cleaning:** Clean the thermostat's exterior with a soft, dry cloth. Do not use abrasive cleaners or solvents.

- **Battery Replacement:** When the battery icon on the display indicates low power, replace the 2 AA batteries promptly to ensure continuous operation. Always use fresh, high-quality alkaline batteries.
- **Sensor Care:** Ensure the thermostat's vents are not obstructed to allow for accurate temperature and humidity readings.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Thermostat display is blank.	Dead batteries.	Replace the 2 AA batteries.
Heating/Cooling system not responding.	Incorrect wiring; Power supply issue; System in wrong mode.	Check wiring connections; Ensure main power is on; Verify thermostat is in the correct operating mode (heating/cooling).
Temperature readings seem inaccurate.	Thermostat location affected by drafts/heat sources; Sensor requires calibration.	Relocate thermostat if possible; Perform sensor calibration as per the full manual.
Keypad is unresponsive.	Key lock function is active.	Press the key lock button (lock icon) to deactivate.
Thermostat does not have Wi-Fi.	The COMPUTHERM Q20 model does not feature Wi-Fi connectivity.	This model is designed for wired operation without Wi-Fi. If Wi-Fi is required, consider models like the Computherm E400RF.

7. SPECIFICATIONS

- **Temperature Measurement Range:** 0 - 48 °C (in 0.1 °C increments) / 32 - 100 °F (in 0.1 °F increments)
- **Humidity Measurement Range:** 0 - 99 % RH (in 1.0 % increments)
- **Adjustable Temperature Range:** 5 - 45 °C (in 0.5 °C increments) / 41 - 97 °F (in 0.5 °F increments)
- **Adjustable Humidity Range:** 0 - 99 % RH (in 1.0 % increments)
- **Temperature Calibration Range:** ±3 °C (in 0.1 °C increments) / ±6 °F (in 0.1 °F increments)
- **Switchable Current:** 8A (2A inductive load)
- **Power Supply:** 2 x 1.5 V AA Alkaline batteries
- **Voltage:** 230 Volts (for control circuit connection)
- **Product Dimensions (L x W x H):** 12.5 x 8.2 x 2.45 cm
- **Item Weight:** 200 grams
- **Connectivity Technology:** Wired
- **Special Feature:** Humidity control and advanced programming

8. WARRANTY & SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or contact the manufacturer/seller directly. The manufacturer of the COMPUTHERM Q20 is Calorsol.

For further information, you may visit the manufacturer's website: www.calorsol.de

Related Documents - Q20

COMPUTHERM Q7RF Programmable wireless (radio-frequency) digital room thermostat Operating Instructions	[COMPUTHERM Q7RF Programmable Wireless Digital Room Thermostat Operating Instructions](#) Comprehensive operating instructions for the COMPUTHERM Q7RF programmable wireless digital room thermostat. Learn about installation, programming, features, and technical specifications for efficient home climate control.
COMPUTHERM Q20 Programmable, digital room thermostat Operating Instructions	[COMPUTHERM Q20 Programmable Digital Room Thermostat Operating Instructions](#) Comprehensive operating instructions for the COMPUTHERM Q20 programmable digital room thermostat, covering installation, setup, features, and technical specifications for optimal home climate control and energy efficiency.
COMPUTHERM Q20RF Programmable wireless (radio-frequency) digital room thermostat Operating Instructions	[COMPUTHERM Q20RF Programmable Wireless Digital Room Thermostat Operating Instructions](#) Comprehensive operating instructions for the COMPUTHERM Q20RF programmable wireless digital room thermostat, detailing installation, setup, features, and technical specifications for efficient climate control.
COMPUTHERM E280 a programmable digital Wi-Fi thermostat for radiator and underfloor heating systems Instruction Manual	[COMPUTHERM E280 Wi-Fi Thermostat Instruction Manual](#) User manual for the COMPUTHERM E280 programmable digital Wi-Fi thermostat. Covers installation, setup, features, and operation for heating and cooling systems.
COMPUTHERM Q5RF (TX) Multi-zone wireless (radio-frequency) digital room thermostat Operating Instructions	[COMPUTHERM Q5RF (TX) Digital Room Thermostat Operating Instructions](#) Comprehensive operating instructions for the COMPUTHERM Q5RF (TX) multi-zone wireless digital room thermostat, covering installation, basic settings, temperature control, and troubleshooting.
FGK C7RF MANUAL DE PRESENTARE	[FGK C7RF Digital Radio Thermostat Manual - Installation, Programming, and Operation Guide](#) This manual provides detailed instructions for the FGK C7RF digital radio thermostat, covering installation, programming weekly schedules, manual operation modes, battery replacement, receiver setup, and technical specifications for efficient home climate control.