📘 MANUAL

Thermostat for Heaters (Analog / Digital)

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1. Overview

A thermostat for heaters is a control device whose task is to **maintain the temperature of the medium (air, liquid, solid)** within a set range by automatically turning the heating element on and off. It can be a thermostat:

- **mechanical (bimetallic)** – the simplest, set with a knob;
- **electronic (digital)** – with display, relay, hysteresis and alarm function.

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2. Use

- Heating of tanks, pipes, heating mats
- Heaters for air, oil, water, molds
- Incubators, control cabinets, boilers, dryers
- Household appliances, HVAC, laboratories

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3. Technical data (sample)

Parameter	Value
Power	230V or 400V (depending on model)
Hysteresis	1 - 10°C (adjustable on digital models)
Sensor Type	NTC / PT100 / thermocouple
Assembly	Wall-mounted, rail (DIN) or surface-mounted

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4. Safety

⚠ **NOTE: The thermostat is operated under voltage. Installation can only be performed by a person with SEP qualifications.**

- Do not touch the terminals with voltage connected.
- Use overcurrent protections and residual current devices.
- Ensure proper cooling (applicable to models with SSRs).
- Always use a temperature sensor that is compatible with your thermostat type.

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5. Assembly

🔧 ***Mechanical thermostat (bimetallic):***

1. Mount the thermostat in a sheltered location (e.g. on the tank housing or wall).
2. Connect the power wires (L, N) and the heater circuit to the output terminals.
3. Set the temperature using the dial.

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6. Operation

- The thermostat automatically turns the heater on and off depending on the temperature.
- Do not cover the temperature sensor or expose it to moisture.
- In the event of unstable operation – check the correctness of the sensor and power supply.

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7. Maintenance and diagnostics

Symptom	Possible cause	Solution
Heater does not work	No power, faulty sensor	Check the voltage and replace the sensor
Temperature too high	Suspended relay, too high hysteresis	Check the output, set the parameters
Flashing display (digital)	Sensor error/out of range	Check the error markings on the display
The thermostat works in reverse (heats instead of cooling)	Incorrect operating mode setting (HEAT/COOL)	Change Driver Settings

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8. Disposal

Electrical device – should be taken to an e-waste collection point. Do not dispose of in mixed waste.

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9. Concluding Remarks

- The thermostat should only be used for its intended purpose.
- In critical applications (e.g. oil heating), it is recommended to use **an additional, independent temperature protection (STB).**
- Do not exceed the maximum relay current – use an external contactor if necessary.

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10. Warranty

The appliance is covered by a [12/24]-month manufacturer's warranty, provided that it is properly assembled and operated in accordance with these instructions.