

# Automation System TROVIS 5600

## Heating and District Heating Controller TROVIS 5610



### Application

The TROVIS 5610 Heating and District Heating Controller is available in two versions. The **compact version** can be used to control one control circuit (HC or DHW) and the **standard version** allows the control of maximum two control circuits (HC and DHW).



### Special features

- Large-sized touch screen for clear display of technical interactions
- A start-up wizard facilitates initial setup
- Simple menu navigation
- All menus can be selected directly on the start screen
  - **Information menu** with information on sensors, operating modes, system and controller
  - **Mode menu** for setting the operating mode and special times-of-use (day or night mode, stand-by)
  - **Manual menu** for setting the controller outputs
  - **Times-of-use menu** for setting the week schedules with max. three times-of-use per day (in steps of 15 minutes)
  - **Setup menu** for changing the set points and deactivation values, brightness and contrast, language, display calibration and selection of system, configuration and parameters
- Heating characteristics optionally based on the gradient or based on four points; variable return flow temperature limitation
- Adaptation: automatic adaptation of the heating characteristic (room temperature sensor required)
- Optimization: calculation of the best possible activation and deactivation times for the heating (room temperature sensor required)
- Drying of jointless floors function with adjustable parameter settings
- Simple error detection and diagnostics (including diagnostics menu)
- Updatable flash memory in controller (operating system)



Fig. 1: TROVIS 5610 Heating and District Heating Controller (start screen)

## Inputs and outputs

Compact version:

- 5 inputs for Pt 1000 temperature sensors, alternatively, binary inputs for enabling a control circuit, demand processing, flow switch
- 3 relay outputs 230 V AC, 2 A:
  - 1 x control signal output M1 (three-step or on/off)
  - 1 x binary output for a pump

Standard version:

- 8 inputs for Pt 1000 temperature sensors, alternatively, binary inputs for enabling a control circuit, demand processing, flow switch
  - Two 0 to 10 V inputs for demand processing, external set point correction, measured outdoor temperature
  - Two 0 to 10 V outputs for demand, measured outdoor temperature, control signals
  - 7 relay outputs 230 V AC, 2 A:
    - 1 x control signal output M1 (three-step or on/off)
    - 4 x binary outputs for pumps, fault indication or demand
- or
- 2 x control signal outputs M1 and M2 (three-step or on/off)
  - 3 x binary outputs for pumps, fault indication or demand

## Operation

The TROVIS 5610 Heating and District Heating Controller is adapted to a system by first selecting a system scheme. The Mounting and Operating Instructions EB 5610 EN contains more details on the simplified system schemes on the controller display. Any sensors and/or functions not included in the basic configuration of a system can be added over the function blocks. The user can change the system code number and configuration in the 'Setup' menu after entering the code number. The configuration level (CO) for setting the function blocks and the parameter levels (PA) are identified for trained staff with clearly displayed levels for the heating circuit (HC1) and domestic hot water heating (DHW). See Fig. 2.

The user can enter and read out data at the touch screen with the help of plain text prompts.

## Electrical connection and installation

The TROVIS 5610 controller is designed for panel mounting (panel cut-out W x H: 138 x 92 mm).

The wires are connected to terminal strips. The terminal strips are coded mechanically to prevent them being mixed up. Wires with max. 2.5 mm<sup>2</sup> can be connected to each terminal. The sensors' connecting cables must be routed separately from the live cables.

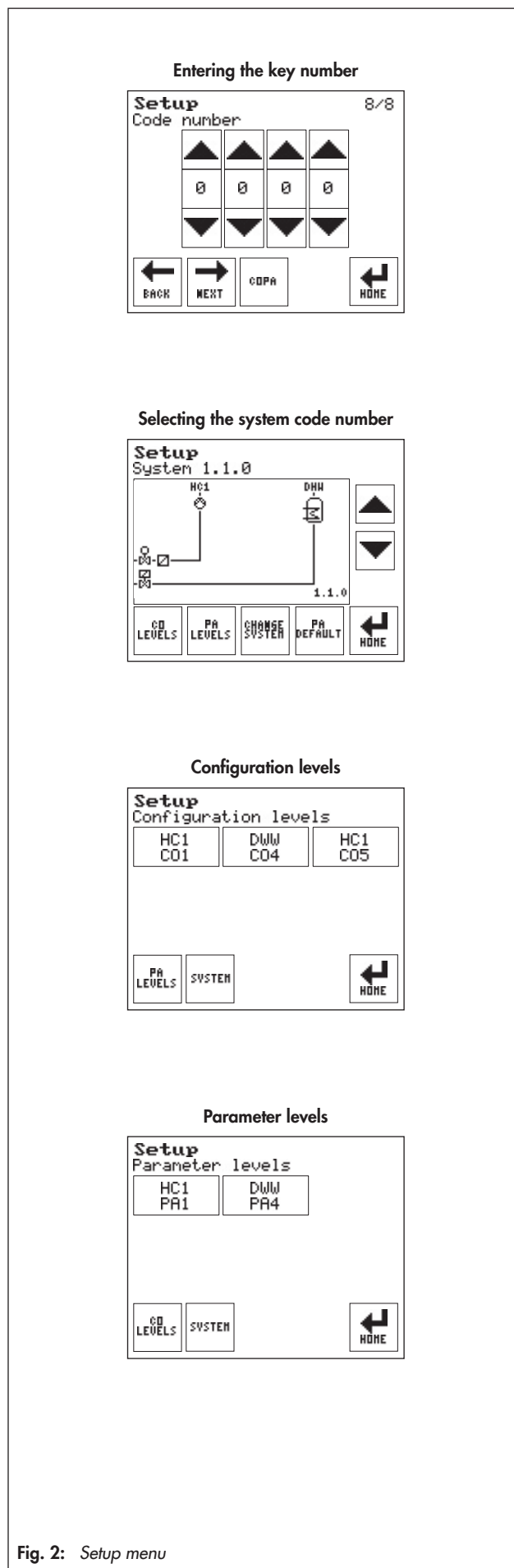


Fig. 2: Setup menu

## Technical data

Inputs	<b>Compact version:</b> 5 inputs for Pt 1000 temperature sensors, alternatively, binary inputs for enabling a control circuit, demand processing, flow switch
	<b>Standard version:</b> 8 inputs for Pt 1000 temperature sensors, alternatively, binary inputs for enabling a control circuit, demand processing, flow switch 2 0 to 10 V inputs for demand processing, external set point correction, measured outdoor temperature
Outputs	<b>Compact version:</b> 3 relay outputs 230 V AC, 2 A: 1 x control signal output M1 (three-step or on/off) 1 x binary output for a pump
	<b>Standard version:</b> 2 0 to 10 V outputs for demand, measured outdoor temperature, control signals 7 relay outputs 230 V AC, 2 A: 1 x control signal output M1 (three-step or on/off) 4 x binary outputs for pumps, fault indication or demand <b>or</b> 2 x control signal outputs M1 and M2 (three-step or on/off) 3 x binary outputs for pumps, fault indication or demand
Interfaces	1 slot for optional interface boards
Operating voltage	90 to 253 V AC
Power consumption	Compact version: max. 2.8 VA Standard version: max. 4.0 VA
Ambient temperature	0 to 50 °C (operation), -20 °C to 70 °C (storage and transport)
Relative humidity	5 to 95 %, no dew formation
Degree of protection	Without seal for panel mounting: IP 40 according to IEC 60529 With seal for panel mounting: IP 41 according to IEC 60529
Class of protection	I according to IEC 61140
Degree of contamination	2 according to IEC 60730
Overvoltage categories	III according to IEC 60730
Noise immunity	According to IEC 61000-6-1
Noise emission	According to IEC 61000-6-3
Dimensions W x H x D	Approx. 147 x 96 x 49 mm
Weight	Approx. 0.4 kg

### Ordering text

Heating and District Heating Controller **TROVIS 5610**

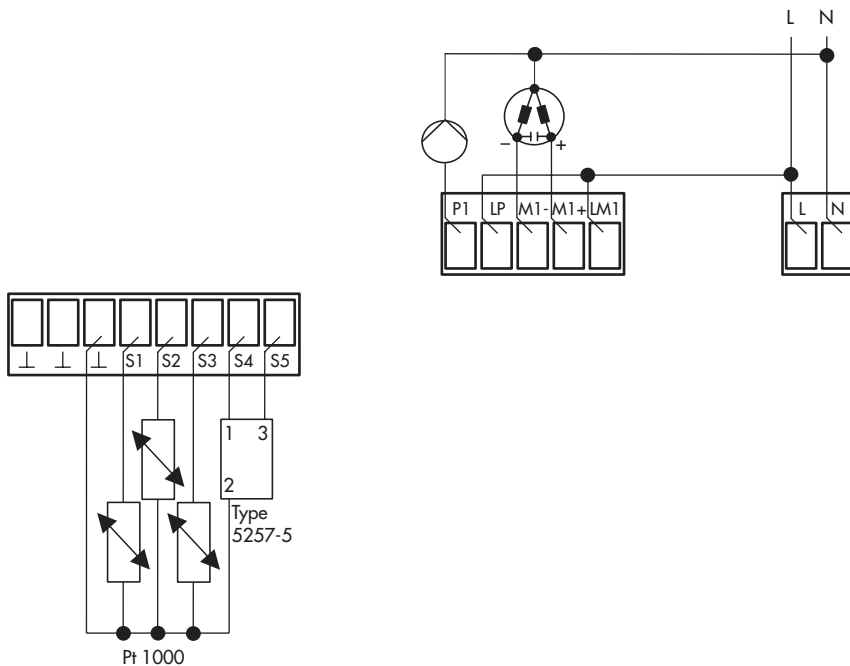
- Compact version
- Standard version

### Accessories:

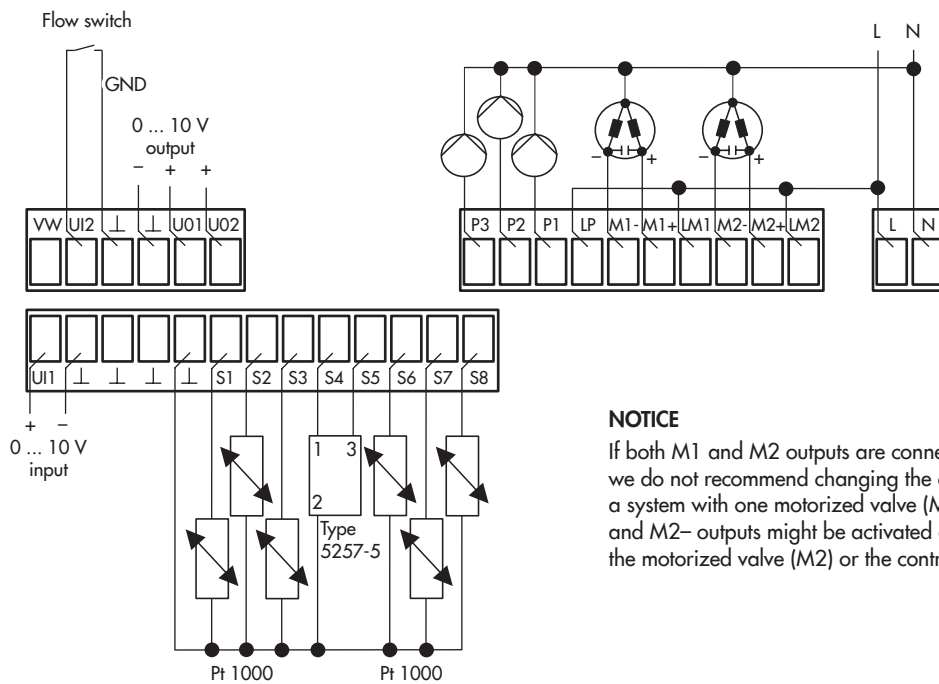
- Type 5257-5 Room Panel (see Data Sheet T 5220 EN)
- Interface board with RJ12 port for memory pen (order no. 1402-0321)
- Memory pen (order no. 1400-7697)
- TROVIS-VIEW 6661 software (with database module 5610)
- Panel mounting set  
for compact version (order no. 1402-0538)  
for standard version (order no. 1402-0530)
- Wall mounting base  
for compact version (order no. 1402-0529)  
for standard version (order no. 1402-0323)
- Bracket for rail mounting (order no. 8864-0168)

## Terminal assignment

### Compact version



### Standard version



#### NOTICE

If both M1 and M2 outputs are connected to motorized valves, we do not recommend changing the controller configuration to a system with one motorized valve (M1). Otherwise, both M2+ and M2- outputs might be activated at the same time, damaging the motorized valve (M2) or the controller.

All ground terminals (⊥) are connected internally with one another!

Specifications subject to change without notice.



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