DATA SHEET

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TROVIS 5575 Heating and District Heating Controller

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Application

Control of max. two control circuits. To control more circuits, several controllers can be linked by a device bus.

The TROVIS 5575 Heating and District Heating Controller is used to control max. two control circuits:

Control of a primary heat exchanger or boiler with max. one mixing and one non-mixing heating circuit (both weather-compensated) as well as control of DHW heating in the secondary circuit

– Control of one weather-compensated heating circuit and a DHW heating with two valves in the primary circuit

– Control of two weather-compensated heating circuits with two valves in the primary circuit

Special features

- Rotary switches for direct access to the operating modes and essential parameters of the control circuits
- Intuitive data retrieval and input by pressing and turning the pushbutton
- Illuminated display
- 365-day clock with max. four time schedules and automatic summer time/winter time changeover; maximum three times-of-use per day (input in steps of 15 minutes)
- Room panels may be connected for each heating circuit:
  - Convenient room panels for adjustment of the operating mode, the day and night set points, the times-of-use for heating, the controller clock and party mode. Additional outdoor and room temperature readings. Connection via device bus
  - Room panel to override operating mode and rated room temperature
- Demand-driven control by set point demand by subsequent controllers over a device bus or 0 to 10 V signal. The primary circuit controls the maximum flow temperature demanded plus adjustable boost.
- Applications with solar hot water system available
- Instantaneous heating systems with water flow sensor configurable

**Fig. 1:** *TROVIS 5575 Heating and District Heating Controller*

- 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
- Updatable flash memory in controller (operating system)

- Configuration and parameterization either using memory module or online using USB converter 3 and TROVIS-VIEW software
- Data logging function:
  - Operating data can be saved to a data logging module
  - Data can be displayed in the data log viewer on the PC

Inputs and outputs

- 8 inputs for Pt 1000/Pt 100, PTC/Pt 100, NTC/Pt 100, Ni 1000/Pt 100 or Pt 500/Pt 100 temperature sensors and two binary inputs
- Three-step or on/off control circuit outputs configurable with PI control algorithm
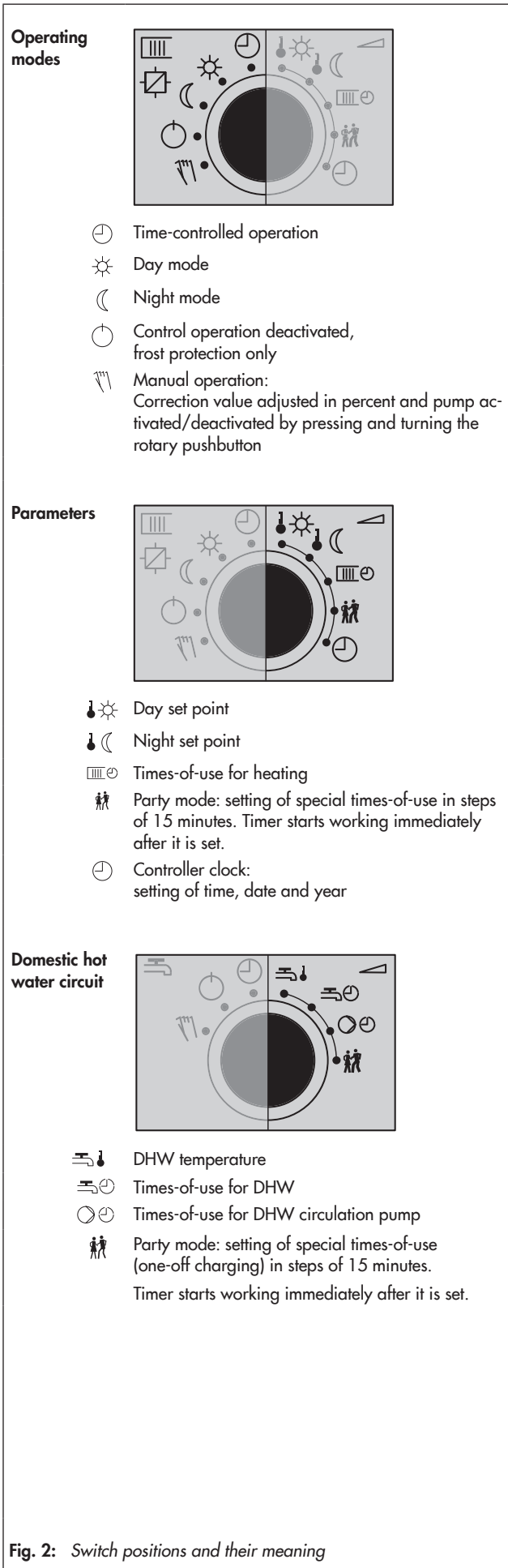
Operation

The TROVIS 5575 Heating and District Heating Controller is adapted to the specific system by setting the appropriate system code number. To select the code number, refer to the system schematics described in the associated mounting and operating instructions. Additional sensors and/or functions which are not part of the system's basic configuration may be selected over function blocks. Press the changeover key ⬦ to access the different levels. For trained staff, the configuration levels used to set function blocks are indicated by "CO" and the parameter levels are indicated by "PA". For example, a clear distinction is made between two heating circuit levels, a domestic hot water level and a communication level.

Data is retrieved and entered at the controller using a rotary pushbutton. This process is facilitated by icons displayed on the LCD. The three rotary switches are used to set the operating mode (left) and the parameters required for each circuit (right) as illustrated in Fig. 2.

Versions

- **TROVIS 5575-000x** · Standard controller with backlight and device bus
- **TROVIS 5575-001x** · Controller with backlight, device bus and an additional pump output
- **TROVIS 5575-002x** · Controller without backlight or device bus

All versions can be fitted with either a standard housing base or a high base (see Fig. 3 and Fig. 4).

Operating modes

- 🕐 Time-controlled operation
- ☼ Day mode
- ☾ Night mode
- 🕐 Control operation deactivated, frost protection only
- Manual operation: Correction value adjusted in percent and pump activated/deactivated by pressing and turning the rotary pushbutton

Parameters

- Day set point
- Night set point
- Times-of-use for heating
- Party mode: setting of special times-of-use in steps of 15 minutes. Timer starts working immediately after it is set.
- Controller clock: setting of time, date and year

Domestic hot water circuit

- DHW temperature
- Times-of-use for DHW
- Times-of-use for DHW circulation pump
- Party mode: setting of special times-of-use (one-off charging) in steps of 15 minutes. Timer starts working immediately after it is set.

Fig. 2: *Switch positions and their meaning*

Technical data

Inputs	8 inputs for Pt 1000/Pt 100, PTC/Pt 100, NTC/Pt 100, Ni 1000/Pt 100 or Pt 500/Pt 100 temperature sensors and two binary inputs, Input terminal 03 alternatively for flow rate signal of heat meter, 0/4 to 20 mA with 50 Ω parallel resistor or 0 to 10 V signal for external demand by subsequent controllers or outdoor temperature signal
Outputs*	2 x three-step signal: load max. 250 V AC, 2 A, alternatively 2 x on/off signal: load max. 250 V AC, 2 A, switch-on surge, max. 16 A
TROVIS 5575-000x and 5575-002x	3 x pump output: load max. 250 V AC, 2 A, switch-on surge, max. 16 A; all outputs are relay outputs with varistor suppression
TROVIS 5575-001x	4 x pump output: load max. 250 V AC, 2 A, switch-on surge, max. 16 A; all outputs are relay outputs with varistor suppression
Interfaces	
TROVIS 5575-000x and 5575-001x	Device bus RS-485 interface for max. 32 bus devices (two-wire system, polarity independent, connection to terminals 14/15)
Operating voltage	165 to 250 V, 48 to 62 Hz, max. 4 VA
Ambient temperature	0 to 40 °C (operation), −10 °C to 60 °C (storage and transport)
Degree of protection	IP 40 according to IEC 60529
Class of protection	II according to VDE 0106
Degree of contamination	2 according to VDE 0110
Overvoltage category	II according to VDE 0110
Humidity rating	F according to VDE 40040
Noise immunity	According to EN 61000-6-1
Noise emission	According to EN 61000-6-3
Weight	Approx. 0.5 kg
Compliance	CE · EHC

* For systems with one control circuit, a maximum of four pumps are available

Electrical connection and installation

The controller consists of the housing containing the electronics and a separate terminal board for electrical connection. Two wires of max. 1.5 mm² may be connected to each terminal. The sensor connection lines must be installed separately from the lines carrying the power supply. For wall mounting, screw the terminal board to the wall. After wiring the controller, place the controller housing onto the terminal board and fasten it with two screws. Two fastening elements for panel mounting are included.

Ordering text

TROVIS 5575-00xx Heating and District Heating Controller with standard base or high housing base

Accessories:

– Room panels
  Type 5244 · PTC sensor with room panel
  Type 5257-5 · Pt 1000 sensor with room panel
  TROVIS 5570 · room panel with display
– Memory module (1400-9379)
– Data logging module (1400-9378)
– USB converter 3 together with data log viewer software (1400-9377)
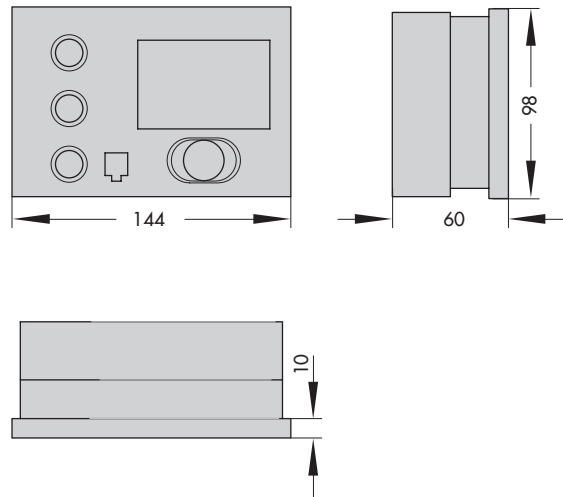– TROVIS-VIEW software (6661-1011) for TROVIS 5575

Dimensions in mm

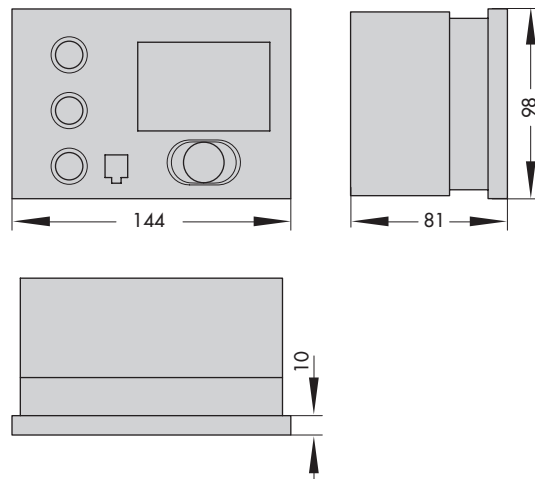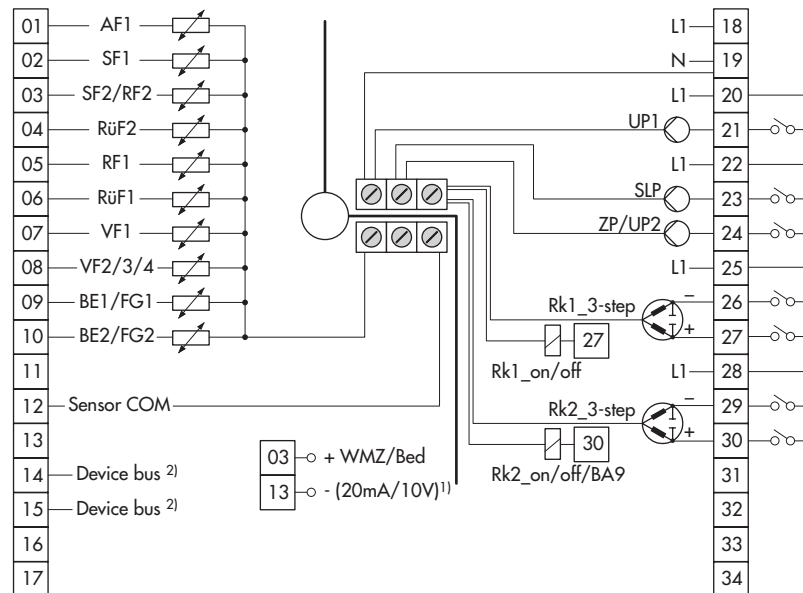**Fig. 3:** *Controller with standard base*

Fig. 4: *Controller with high base*

Panel cut-out: 138 x 92

Terminal assignment

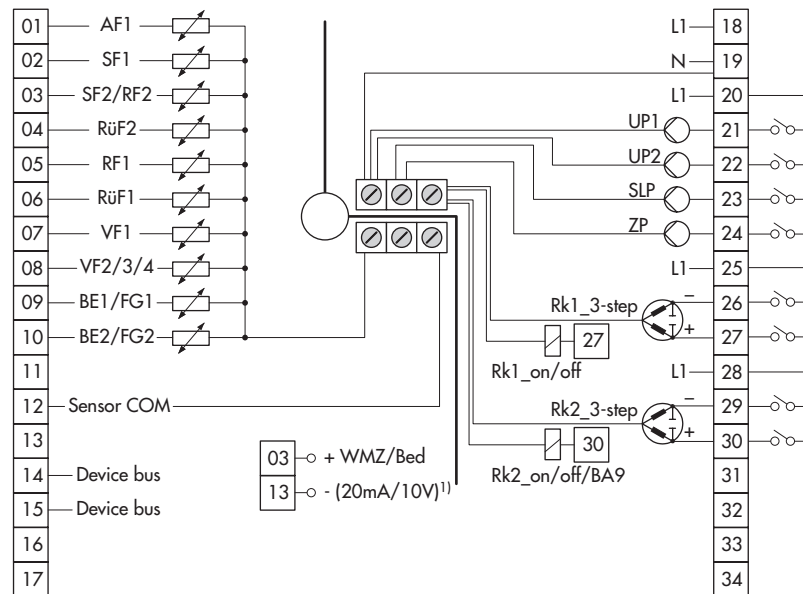**CAUTION!**
Never connect terminals 12 (ground for sensor) and 13 (ground for 0 to 10 V/0 to 20 mA)!

[1] A 50 Ω resistor is required between terminals 03 and 13 for applying a 20 mA signal.

[2] TROVIS 5575-000x only

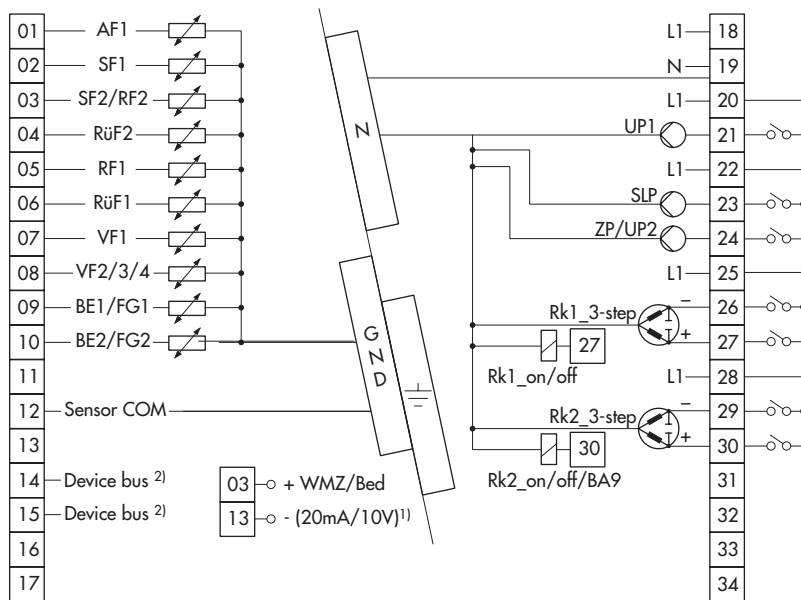**Fig. 5:** *Terminal assignment of **TROVIS 5575-000x** and **TROVIS 5575-002x** Controllers*

CAUTION!
Never connect terminals 12 (ground for sensor) and 13 (ground for 0 to 10 V/0 to 20 mA)!

[1] A 50 Ω resistor is required between terminals 03 and 13 for applying a 20 mA signal.

Fig. 6: *Terminal assignment of **TROVIS 5575-001x** Controller*
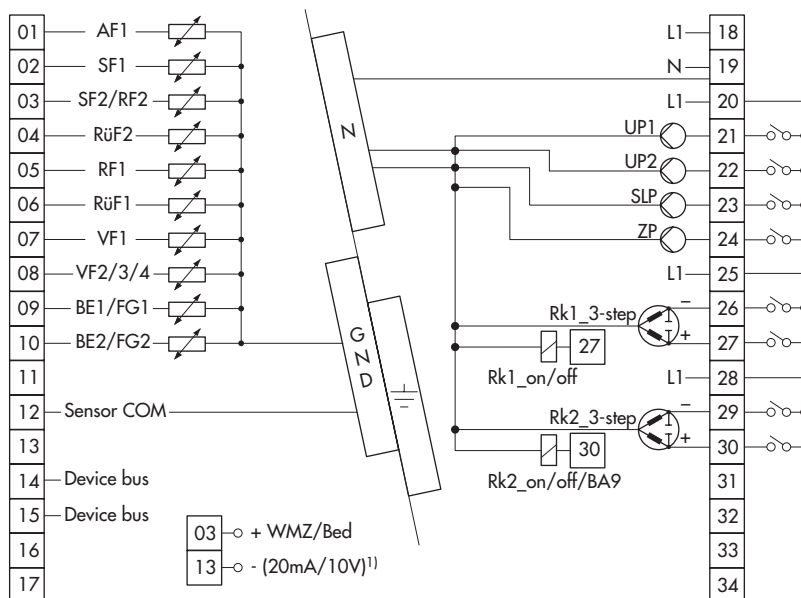
Terminal assignment (continued)

CAUTION!

Never connect terminals 12 (ground for sensor) and 13 (ground for 0 to 10 V/0 to 20 mA)!

[1] A 50 Ω resistor is required between terminals 03 and 13 for applying a 20 mA signal.

[2] TROVIS 5575-000x only

Fig. 7: *Terminal assignment of **TROVIS 5575-000x** and **TROVIS 5575-002x Controllers** with high base*

CAUTION!

Never connect terminals 12 (ground for sensor) and 13 (ground for 0 to 10 V/0 to 20 mA)!

[1] A 50 Ω resistor is required between terminals 03 and 13 for applying a 20 mA signal.

Fig. 8: *Terminal assignment of **TROVIS 5575-001x Controller** with high base*