thTx

Room terminal for temperature and humidity control

Temperature and humidity control

The thTx room terminal allows end users to quickly and easily set the temperature and humidity set points in rooms intended for commercial or residential use, so as to achieve the required indoor comfort.

- Large and bright display for a quick and clear view of the information ;
- Robust and elegant design with a steel frame and tempered glass;
- Simple installation and compatibility with the most common electrical boxes;
- Three built-in relays for managing fans, and one for the zone valve.

The need for a product with a modern and elegant design, yet at the same time easy and functional, has led CAREL to upgrade its range of room terminals.
The result is the thTx thermostat, a device for controlling room temperature and humidity.
The terminal features a large backlit LCD display with inverted contrast and capacitive touch buttons, housed in a sturdy metal and tempered glass case.

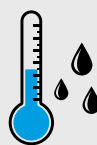Users can manage the following main functions on the thTx terminal:
- switch the unit ON/OFF;
- set the operating mode (summer/winter/fan only);
- set the temperature or humidity set point;
- set the 3 fan coil speeds;
- activate the zone valve via a dedicated relay.

The thermostat is equipped with its own logic, and can be used in stand-alone mode or controlled via the Modbus communication protocol. Up to 32 terminals can be connected on the same serial network and to a pCO/c.pCO/boss system.

Capacitive keypad
The new capacitive keypad ensures quick, simple and intuitive interaction. Confirming and changing the configuration is even more precise.

Built-in temperature and humidity probe
The values read can be shared with both the display and the connected controller. The dual probe offers the important benefit of having a single room terminal solution.

Easy to use and install
The mounting plate makes installation simple and intuitive, while interaction with the settings is also simplified.

One device, multiple applications

Thanks to its easy installation and modern design, the thTx room terminal can be used in multiple HVAC applications

Rooftop and air handling units

Air handling units and rooftops have the task of introducing supply air into the environment to meet the quality and quantity requirements set by the user. These units are widely used in buildings such as hypermarkets, shopping centres, restaurants and cinemas.

The thTx terminal allows users to display and send the values read by the temperature and humidity probes to the unit controller, switch the unit on and off, change the operating mode and the set point.

Ventilation unit with heat recovery

Small heat recovery units increasingly used in high-efficiency new buildings, are often managed by a thermostat. The thTx can control these units by setting the temperature or overriding the fan speed for higher or lower air change.

Fan coil application

The new thTx comes with 4 relays as standard, making it ideal for managing simple fan coil applications. Based on the set point, it can activate the zone solenoid valve and set three different fan speeds. The terminal can be connected to a supervisory system.
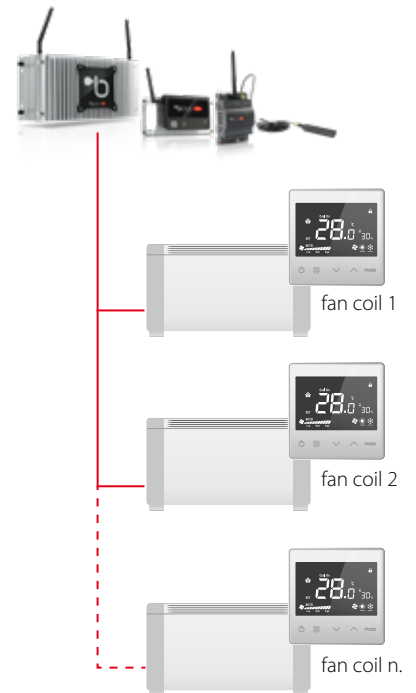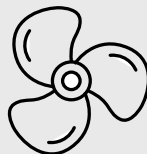
fan coil 1

fan coil 2

Residential heat pumps

Fundamental for the decarbonisation of heating systems. The terminal's built-in relay can be used to activate the zone valve, based on the specific heating or cooling demand.

fan coil n.

Simple and remote logic

The terminal can be configured in stand-alone mode as a room thermostat with integrated logic, or can be connected to an RS485 Modbus® serial network, in which case the logic is managed by the pCO/c.pCO programmable controllers.

Dedicated fan management

The three-way relay can manage a dedicated fan with three different speeds (low, medium or high), in addition to automatic mode and fan stop.

Additional relay

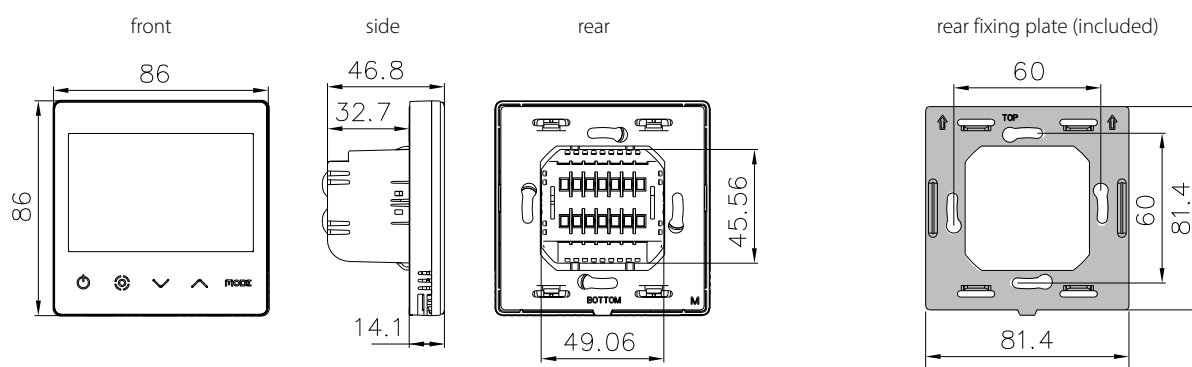Allows direct control of a valve for a radiant system such as in underfloor heating systems.

Technical specifications

Colour	white
Mounting	flush mounted
Customisation	the logo, faceplate colour, buttons and parameters can be customised on request
Certification	CE

Models

TDB001AAF0	115-230 Vac, temperature sensor only
TDC001AAF0	24 Vac/Vdc, temperature sensor only
TDB001ACF0	115-230 Vac, temperature and humidity sensors
TDC001ACF0	24 Vac/Vdc, temperature and humidity sensors

Dimensions (mm)

front, side, rear, rear fixing plate (included)

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