Thermostats

Carrier electronic thermostat range is available for all Carrier hydronic terminals ranges:

- Type A - Two-pipe application with AC motors
- Type B - Four-pipe or two-pipe applications with electric heaters with AC motors
- Type C - Two-pipe application with EC motors
- Type D - Four-pipe or two-pipe applications with electric heaters with EC motors

The thermostat for fan coil units with EC motor option controls three configurable discrete speeds via an 0-10 V signal.

The electronic thermostat set range is from 10°C to 30°C, with the possibility to limit the temperature in public buildings where low energy consumption is a key requirement. This is done via a dip-switch inside the control (cooling range 23°C/30°C, heating range 10°C/21°C).

Features and advantages

- Auto fan: the control automatically sets the fan speed. If the room temperature is far from the set point, high fan speed is selected. As the room temperature approaches the desired value, the fan speed decreases to the minimum speed.

- Automatic changeover from cooling to heating mode, based on the water temperature, ensures that the ideal room temperature is maintained.

- Remote changeover - automatic changeover from cooling to heating mode, based on the remote signal from the monitoring system.

- Frost protection keeps the room temperature above a minimum level.

- Booster heating control optimisation (with electric heater option): with the water temperature below 30°C the system will be in heat demand mode and the electric heater is the only available heating source. If the water temperature is above 35°C the system will be in booster heating mode, energising water valve and electric heater together. This function is deactivated if the water temperature is above 45°C (the electric heater will be de-energised).

- Energy saving when the room is unoccupied, without the need to switch off the unit. If the energy-saving button is pressed, the actual set point will be modified as follows, without changing the position of the set point selection knob: ± 4 K.

- LED intensity (offices or light commercial applications) - 10 seconds after the last user interface use all LEDs are reduced in intensity. To avoid disturbing hotel guests, the thermostat can be configured from "Night Mode" to "Dark Mode": 10 seconds after the last user interface use, all LEDs are switched off.

- Air sampling: with no fan request and the air sampling jumper in ON position, the control performs the air sampling function. The air in the room is moved, thermal stratification is reduced for a more reliable ambient temperature reading.

- Continuous fan (no fan request and continuous fan jumper ON): the control selects the fan speed, regardless of thermal station conditions. With fan in auto fan mode and control not in the demand phase, the fan permanently runs at low speed.

- External contact: A high voltage input signal for external contact is present. If the contact is activated, device behaviour depends on its configuration on site:
  - Presence detection energy saving mode is activated, room temperature is raised by 4 K in cooling mode and reduced by 4 K in heating mode.
  - Window contact: in OFF mode (window open), all outputs are disconnected (fan, valves, etc.) and only the frost protection function is active, if enabled.

CONTROLS