

Electro-Mechanical Thermostat Installation Instructions



The TC100 Series of fan coil thermostats are optimised for office building, hotel and residential applications. The TC100 Series can be used for two-pipe or four-pipe applications. Their simple design makes them suitable for any contemporary building. They are both easy to operate and install.

Features

- Set-point, fan speed and mode control
- Easy to install and maintain
- Green set-point marking indicates ideal range for energy efficiency

Part numbers

Part Number	Description	Application
TC103-3A2	FCU Thermostat for 2-position on/off actuator (2-wire)	2-pipe
TC103-3A2C	FCU Thermostat for 2-position on/off actuator w/fan stop (2-wire)	2-pipe
TC103-3B2	FCU Thermostat for 2-position on/off actuator (3-wire)*	2-pipe
TC103-3B2C	FCU Thermostat for 2-position on/off actuator w/fan stop (3-wire)*	2-pipe
TC103-3A4	FCU Thermostat for 2-position on/off actuator (2-wire)	4-pipe

*Note: 3-wire actuator requires Form C /time-out functionality.

Functions

Set-point Adjustment - The set-point adjustment dial allows users to select a desired set-point for the space. The green set-point marking provides the user with the ideal range to optimise energy efficiency. The set-point range can also be limited by locking the set-point range.

Fan Speed - Users can select between High, Medium and Low fan speeds by adjusting the fan speed switch.

Mode Control - Users can switch modes from heating to cooling, or turn the thermostat off by adjusting the mode switch.

Specifications

Sensing element	10K NTC (3950)
Accuracy	±1.5°C at 20°C
Set-point range	5~30°C
Operating temperature	0~45°C
Storage humidity	5~90% RH
Storage temperature	-10~60°C
Power supply	230VAC±10%, 50/60Hz
Switch current rating	2A resistive, 1A inductive
Protection class	IP20
Housing	Flame-retardant PC
Dimensions	86 x 86 x 27 mm (3.38" x 3.38" x 1.06")
Hole pitch	60 mm (Standard)

Installation guidelines

- Install the thermostat about 1.5meter (59") above the floor
- Make sure the device is powered off prior to installation/service.
- Do not install in locations that can be affected by radiant heat or in places with high levels of sunlight.
- Do not install thermostats behind doors or in corners
- Protect from water/debris to avoid damaging the thermostat.

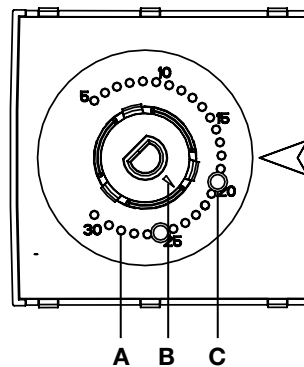
Operations

There is a temperature adjusting dial with graduation marks on the front panel, as well as a fan speed switch (HIGH-MED-LOW “☁”-“☁”-“☁”) and a mode control switch (HEAT-OFF-COOL “☀”-“⏻”-“❄”). The operation steps are as follows:

- ON/OFF: Slide the switch “☀”-“⏻”-“❄” to “☀” to turn on heating mode, or “❄” to select cooling mode. Slide the switch “☀”-“⏻”-“❄” to “⏻” to turn off the thermostat.
- Temperature Setting: Turn the dial and make the desired temperature set-point match up with the green arrow.
- Fan Speed Selection: Slide the fan speed switch “☁”-“☁”-“☁” to “☁” for high fan speed, to “☁” for medium fan speed and “☁” for low fan speed.
- Control Motorised Cooling/Heating Valve: during cooling or heating mode control, the motorised valve opens when the room temperature is higher/lower than the set-point. After the room temperature reaches the set-point, TC103-3A2/3B2 will close the valve with the fan still running, TC103-3A2C/3B2C will close the valve and switch off the fan.
- Control Motorised Cooling and Heating Valve (TC103-3A4): the cooling valve will be opened when the room temperature is higher than the set-point during cooling mode. The heating valve will be opened when the room temperature is lower than the set-point during heating mode. After the room temperature has reached the set-point, TC103-3A4 will close the valve with the fan still running.
- LED indicates operation status: GREEN shows the thermostat is in heating or cooling mode

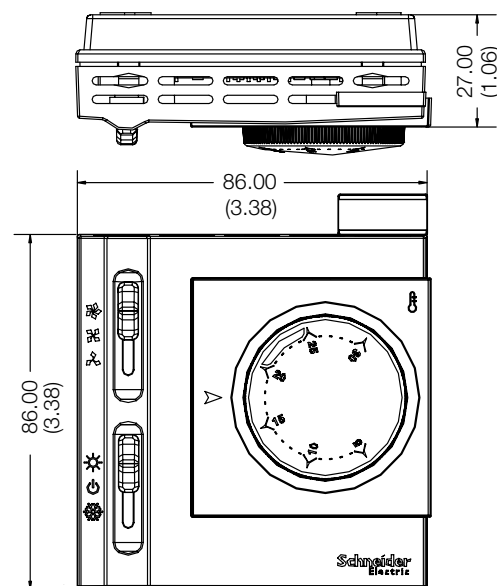
Limiting the set-point range

- Open the grey square panel by hand or with a tool.
- Take out the limiters which are inserted on 5°C and 30°C position.
- Select your desired temperature set-point range (for example 20°C~25°C).
- Turn the dial and locate the green arrow between 20°C and 25°C.
- Insert the two limiters on the position of 20°C and 25°C
- Please check to confirm if the limited set-point range has been successfully set, if not, please change the position of the limiters and try again.
- Place the grey panel back onto the thermostat.

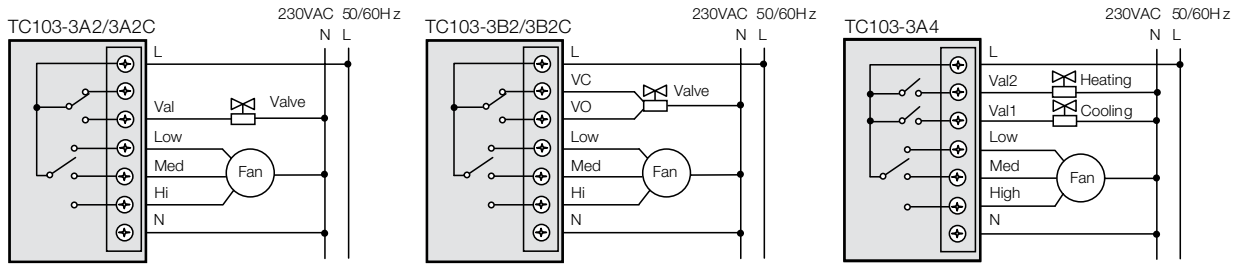


A Set-point limited position hole
B Arrow
C Temperature set-point limiter

Dimensions mm (in.)

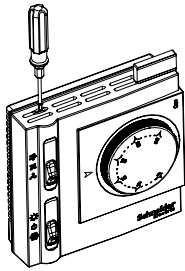


Wiring diagram

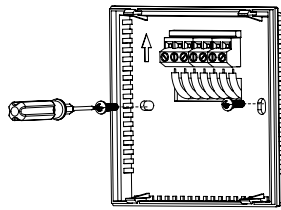


Mounting

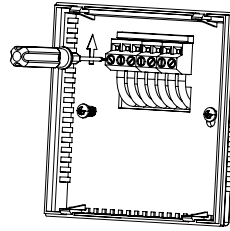
1 Open thermostat



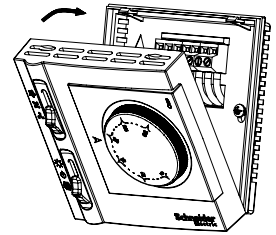
2 Install back base



3 Wire connection



4 Close front cover



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