# **EasyLogic** Thermostat TC700 Series for Fan Coil Applications



## **Product Description**

The TC700 Series fan coil thermostats are optimized for office buildings, schools and hotels. These devices can be used for 2-pipe or 4-pipe applications.

The TC700 Series is both easy to operate and install. The devices feature microprocessor-based control and large backlit LCD screens that display operation status (Cooling, Heating, Auto and Ventilation), fan speed, room temperature and set-point.

## Features

- Large back-lit LCD screen
- ECO button for energy saving
- · Button lockout function controls unauthorized operation
- Non-volatile memory (MCU Flash) retains user settings during power loss
- · Low temperature protection
- Standard BS wall box for installation
- · Alert function facilitates temperature sensor maintenance
- Temperature display units: °C
- 0-10V valve control mode models include external door key/occupancy sensor input

## **Available Products**

Part Number	Application	Actuator Control	Fan Control	Input Voltage	Digital Input Terminal	Housing
TC700-3A2LXX	2-pipe	2-Position, on/off	3-Speed, Auto	90 to 240 Vac	No	Medium White
TC700-3A4LXX	4-pipe*	2-Position, on/off	3-Speed, Auto	90 to 240 Vac	No	Medium White
TC700-3A2PXX	2-pipe	Proportional	3-Speed, Auto	90 to 240 Vac	Yes	Medium White
TC700-3A4PXX	4-pipe*	Proportional	3-Speed, Auto	90 to 240 Vac	Yes	Medium White
TC700-3A2PXX-24	2-pipe	Proportional	3-Speed, Auto	24 Vac	Yes	Medium White
TC700-3A4PXX-24	4-pipe*	Proportional	3-Speed, Auto	24 Vac	Yes	Medium White

\* Can be changed from 4-pipe system with 2-wire motorized valve, to 2-pipe system with 3-wire motorized valve.

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#### EasyLogic Thermostat - TC700 Series Specification Sheet

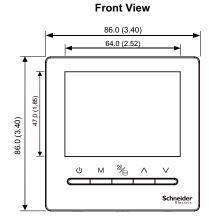
## **Specifications**

Built-in sensing element	100 kΩ NTC			
Accuracy	±1 °C			
Set-point range	5 to 35 °C			
Display range	0 to 50 °C (shown in 0.5 °C increments)			
Operating temp.	0 to 45 °C			
Operating humidity	0 to 95 %RH (non-condensing)			
Actuator control	SELV DC 0 to 10V max. ±1 mA			
Power consumption	< 2 W			
Power supply	90 to 240 Vac, 50/60 Hz 24 Vac (models with suffix '-24')			
Relay and load	Relay rating 5A Load rating 2A resistive, 1A inductive @ cosφ=0.6 (power factor)			
Protection class	IP30			
Housing	Flame-retardant PC			
Dimensions	86 x 86 x 14.2 mm (3.40" x 3.40" x 0.56")			
Wall box	BS wall box, min. 35 mm depth			
Hole pitch	60 mm (standard)			
Pollution Degree	Pollution Degree 2			
Type of operation	Type 1.B			

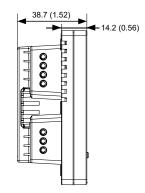
Terminal sizing	Max. 2 x 1.5 mm <sup>2</sup> or 1 x 2.5 mm <sup>2</sup> conductors			
Screw terminals max. torque*	0.44 Nm			
Regulatory Information				
Agency approvals	European conformance CE: IEC/EN 60730-1 IEC/EN 60730-2-9 RoHS: 2011/65/EU, 2015/863/EU REACH: 1907/2006/EC			

\*Terminal screw torque should not exceed the maximum torque specification to avoid plastic cracks. Over-tightening the terminal screw may lead to cracked plastic.

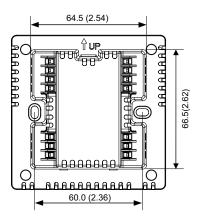
## Dimensions mm (in.)



#### Side View



**Back View** 



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#### **Functions**

## Set-point Adjustment

The set-point buttons allow users to adjust the set-point in 0.5 °C increments for the space.

#### Fan Speed

Users can select a fan speed (High, Medium, Low or Auto) with a short press of the FAN/ECO button.

#### Mode Control

Users can switch operating modes (Heating, Cooling, Auto or Ventilation) by pressing the Mode button.

### Eco Power Saving Mode

Initiate Eco mode with a short press of the FAN/ECO button. The ECO icon will appear in the bottom center of the display. In Cooling mode, the set-point is automatically adjusted to 26 °C and the fan speed is set to Low. In Heating mode, the setpoint is automatically adjusted to 18 °C and the fan speed is set to Low. Exit Eco mode with a short press of the FAN/ECO button and choose any other fan speed, as desired.

#### **Button Lockout Function**

This function allows the buttons to be deactivated to prevent operation of the device by others.

#### Low Temperature Protection

If the room temperature drops below 5 °C, Heating mode will start automatically and the fan speed will be set to High. Once the temperature reaches 7 °C, the device will switch off the output.

#### Alert

In the event of an operating exception, the thermostat will attempt to command the valve to close and place the device in an inoperative state. The display will indicate the current status with one of the following diagnostic messages:

- EE: MCU Flash failure (retain user setting area)
- E1: Temperature sensor short-circuit alert
- E2: Temperature sensor open-circuit alert
- HI: Ambient temperature is higher than 50°C
- Lo: Ambient temperature is lower than 0°C

#### Occupancy Sensor/Key Card

The digital input terminal in selected models allows FCU control based on an external occupancy sensor or key card input. Note: This function is only available on models with a 'P' in the model number: 3A2PXX, 3A4PXX, 3A2PXX-24, 3A4PXX-24.

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