

# SpaceLogic Thermostat

## TC900 Series for Fan Coil Applications



TC907 Series



TC903 Series

### Product Description

The TC900 Series fan coil thermostats are optimized for office building, hotel, hospital and residential applications.

The TC900 Series can be used for 2-pipe or 4-pipe applications.

Available in two housing finishes: optimum (black glass display with capacitive buttons on a black or white base) or medium (white glass display with mechanical buttons on a white base).

The TC900 Series is both easy to operate and install. The devices feature microprocessor-based control and large backlit LCD screens which display operation status (cooling, heating, and ventilation), fan speed, room temperature and set-point.

### Features

- Two housing options:
  - Optimum black glass on white housing with capacitive buttons
  - Medium white glass housing with mechanical buttons
- Large back-lit LCD screen
- Eco button for energy saving
- Button lockout function controls unauthorized operation
- Non-volatile memory (EEPROM) retains user settings during power loss
- Low temperature protection
- Standard 86 x 86 mm box for installation
- Alert function facilitates temperature sensor maintenance
- Optional Modbus communication
- Deluxe models include:
  - Sleep mode for energy savings
  - Occupancy/card key input
  - Real time display
  - Optional remote temperature sensor

### Available Products

#### TC907 Series

Part Number	Application	Actuator Control	Deluxe Model	Fan Control	Input Voltage	Comm.	Housing
TC907-3A2P-24	2-pipe	Proportional	No	3-Speed, Auto	24 Vac	None	Optimum, Black on White
TC907-3A2L	2-pipe	2-Position, on/off	No	3-Speed, Auto	90-240 Vac	None	Optimum, Black on White
TC907-4FMSA	4-pipe*	2-Position, on/off	No	ECM Fan 0-10V	90-240 Vac	Modbus	Optimum, Black on White
TC907-3A4LMA	4-pipe*	2-Position, on/off	No	3-Speed, Auto	90-240 Vac	Modbus	Optimum, Black on White
TC907-3A4LA	4-pipe*	2-Position, on/off	No	3-Speed, Auto	90-240 Vac	None	Optimum, Black on White
TC907-3A4DPSA	4-pipe*	Proportional	Deluxe	3-Speed, Auto	90-240 Vac	None	Optimum, Black on White
TC907-3A4DPMSA-24	4-pipe*	Proportional	Deluxe	3-Speed, Auto	24 Vac	Modbus	Optimum, Black on White
TC907-3A4DPMSA	4-pipe*	Proportional	Deluxe	3-Speed, Auto	90-240 Vac	Modbus	Optimum, Black on White
TC907-3A4DLSA	4-pipe*	2-Position, on/off	Deluxe	3-Speed, Auto	90-240 Vac	None	Optimum, Black on White
TC907-3A4DLMSA	4-pipe*	2-Position, on/off	Deluxe	3-Speed, Auto	90-240 Vac	Modbus	Optimum, Black on White
RS-03	10K Ohm NTC Type 3 Remote Sensor - 3m (10 Pcs)**						

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

\*\* RS-03 works with all models with an 'S' included in the model number ('DLSA', 'DLMSA', 'FMSA', etc.).

North America (USA): +1 888 444 1311  
 Europe, Middle East & Africa (Sweden): +46 10 478 2000  
 Asia Pacific (Singapore): +65 6484 7877  
 product.support@schneider-electric.com  
 www.schneider-electric.com

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## Available Products (cont.)

## TC903 Series

Part Number	Application	Actuator Control	Deluxe Model	Fan Control	Input Voltage	Comm.	Housing
TC903-3A2P-24	2-pipe	Proportional	No	3-Speed, Auto	24 Vac	None	Medium, White
TC903-3A2L	2-pipe	2-Position, on/off	No	3-Speed, Auto	90-240 Vac	None	Medium, White
TC903-4FMSA	4-pipe*	2-Position, on/off	No	ECM Fan 0-10V	90-240 Vac	Modbus	Medium, White
TC903-3A4LMA	4-pipe*	2-Position, on/off	No	3-Speed, Auto	90-240 Vac	Modbus	Medium, White
TC903-3A4LA	4-pipe*	2-Position, on/off	No	3-Speed, Auto	90-240 Vac	None	Medium, White
TC903-3A4DPSA	4-pipe*	Proportional	Deluxe	3-Speed, Auto	90-240 Vac	None	Medium, White
TC903-3A4DPMSA-24	4-pipe*	Proportional	Deluxe	3-Speed, Auto	24 Vac	Modbus	Medium, White
TC903-3A4DPMSA	4-pipe*	Proportional	Deluxe	3-Speed, Auto	90-240 Vac	Modbus	Medium, White
TC903-3A4DLSA	4-pipe*	2-Position, on/off	Deluxe	3-Speed, Auto	90-240 Vac	None	Medium, White
TC903-3A4DLMSA	4-pipe*	2-Position, on/off	Deluxe	3-Speed, Auto	90-240 Vac	Modbus	Medium, White
RS-03	10K Ohm NTC, Type 3 Remote Sensor - 3m (10 Pcs)**						

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

\*\* RS-03 works with all models with an 'S' included in the model number ('DLSA', 'DLMSA', 'FMSA', etc.).

## Specifications

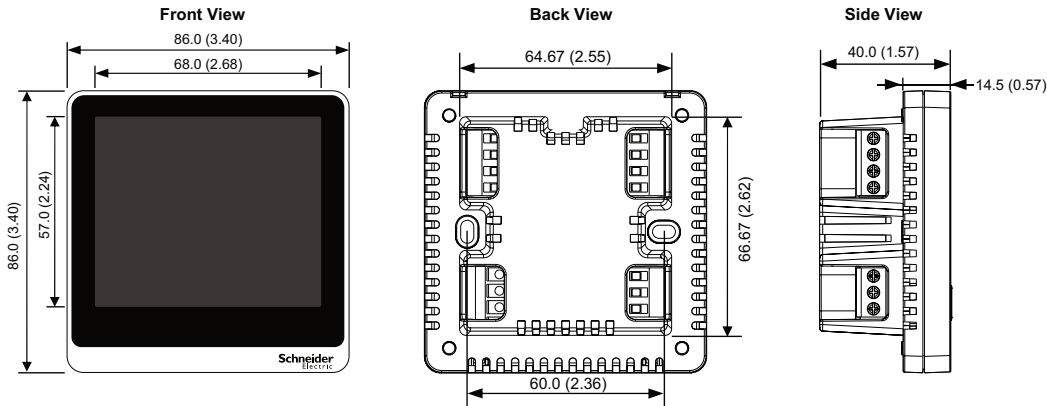
Built-in sensing element	100 kΩ NTC, type 3
Accuracy	±1 °C
Set-point range	5 to 35 °C
Display range	0 to 50 °C (shown in 0.5 °C increments)
Operating temp.	0 to 50 °C
Operating humidity	5 to 95 %RH (non-condensing)
Power consumption	< 1.7 W
Power supply	90 to 240 Vac, 50/60Hz 24 Vac (models with suffix '-24')
Relay & load	Relay rating 5A Load rating 2A resistive, 1A inductive
Protection class	IP20
Housing	Flame-retardant PC
Dimensions	86 x 86 x 14.5 mm (3.40" x 3.40" x 0.57")
Wall box	BS wall box, min. 35 mm depth
Hole pitch	60 mm (standard)
Control 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
<b>Regulatory Information</b>	
Agency approvals	European conformance CE: IEC/EN 60730-1 IEC/EN 60730-2-9

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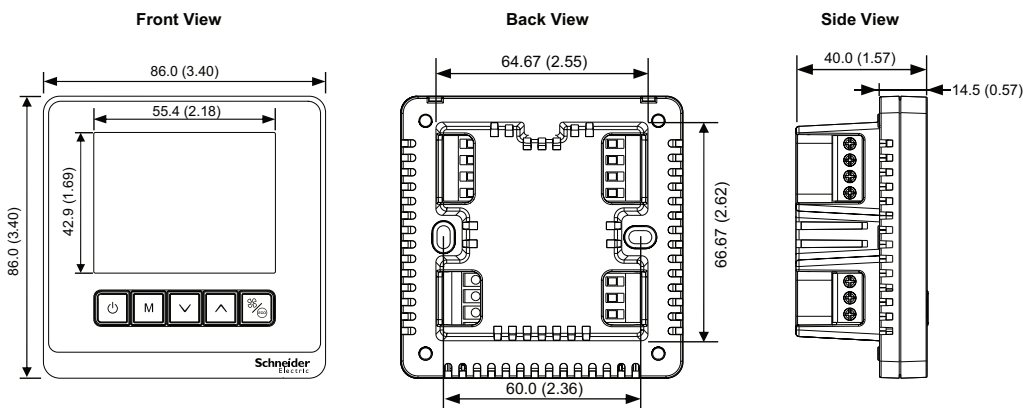
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Dimensions mm (in.)  
TC907 Series



TC903 Series



Functions

**Set-point Adjustment** – The set-point buttons allows users to adjust the set-point (in 0.5 °C increments) for the space.

**Fan Speed** – Users can select fan speed (High, Medium, Low and Automatic) by pressing the Power/Fan button.

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

**Eco Saving Mode** – Pressing the Eco button starts the energy savings mode. In cooling mode, the set-point is automatically adjusted to 26 °C and the fan speed is set to Low. In heating mode, the set-point is automatically adjusted to 18 °C and the fan speed is set to Low. The user can exit the energy saving by pressing the Eco button.

**Button Lockout Function** – Allows the buttons to be deactivated to prevent thermostat operation by others.

**Low Temperature Protection** – If the room temperature drops below 5 °C, the thermostat will start automatically and the fan speed will be set to High. Once the temperature reaches 7 °C, the thermostat 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:

- EEPROM failure: LCD displays icon and 'EE'.
- Temperature sensor short-circuit failure: LCD displays icon and 'E1'
- Temperature sensor open-circuit failure: LCD displays icon and 'E2'
- Ambient temperature is higher than 50°C: LCD displays 'HI'
- Ambient temperature is lower than 0°C: LCD displays 'LO'

Accessories

Remote Sensor

The RS-03 remote sensor can be used in place of the existing built-in temperature sensor of the TC900 Series thermostats (deluxe models only). It has the same 10 kΩ NTC (3950) element encapsulated in a plastic bulb housing that measures approximately Ø6 x 25 mm and is supplied with 3 m cable (2-wire), finished in all white. The RS-03 sensors are only available in multi-packs of 10 pieces.

