



# FCU Fan-Coil Unit Control System Solutions

## Thermostat



TPD-433 Series

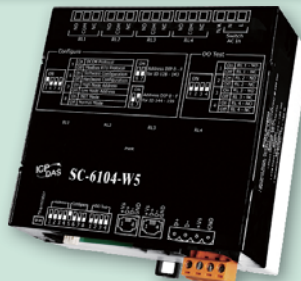


TPD-703 Series

## Relay Board



SC-4104-W1



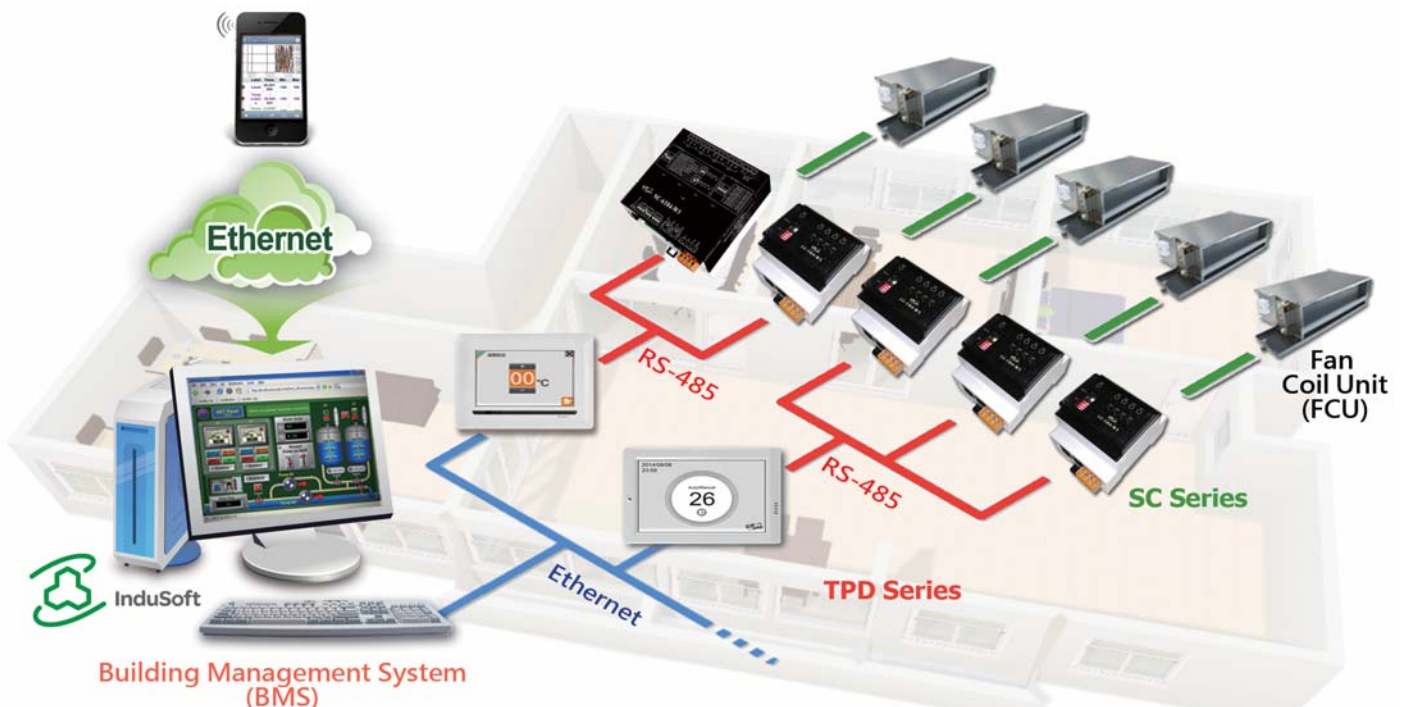
SC-6104-W5

Available soon

SC-6105-W5

## Architecture: Seamless Integration with BMS

Unlike the commercially available thermostat that requires installation of network concentrator when integrating with the BMS (Building Management System) develop package; the TPD series can be integrated with the Building Management System directly via Modbus TCP protocol by Ethernet; therefore lower the complexity of system implementation and reduce the future maintenance/operation costs.



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## Introduction

FCU(Fan Coil Unit) is widely used in commercial building for air conditioning system, with relay board and thermostat, it allows easy control for maintenance of comfortable indoor temperature. To maintain user-defined indoor temperature, the relay board is used for controlling the air flow of FCU, and the flow rate of the two-way valve or three-way valve for the chilled-water and hot-water in FCU. And the thermostat provides users interface for easy set-up of the temperature and air flow.

The ICP DAS SC series control module in FCU works not only as a relay board, it also provides functions such as: assigning network address, switches testing, delay of power output. And with the TPD series color TouchPAD (works as thermostat, preloaded with intelligent control procedures), in addition to temperature setting function, it can also perform various functions such as: schedule setting, temperature compensation, remote control, and remote schedule setting, etc. The users can experience a more visual upgrade interface with intelligent features that mechanical or monochrome LED HMI cannot achieve.

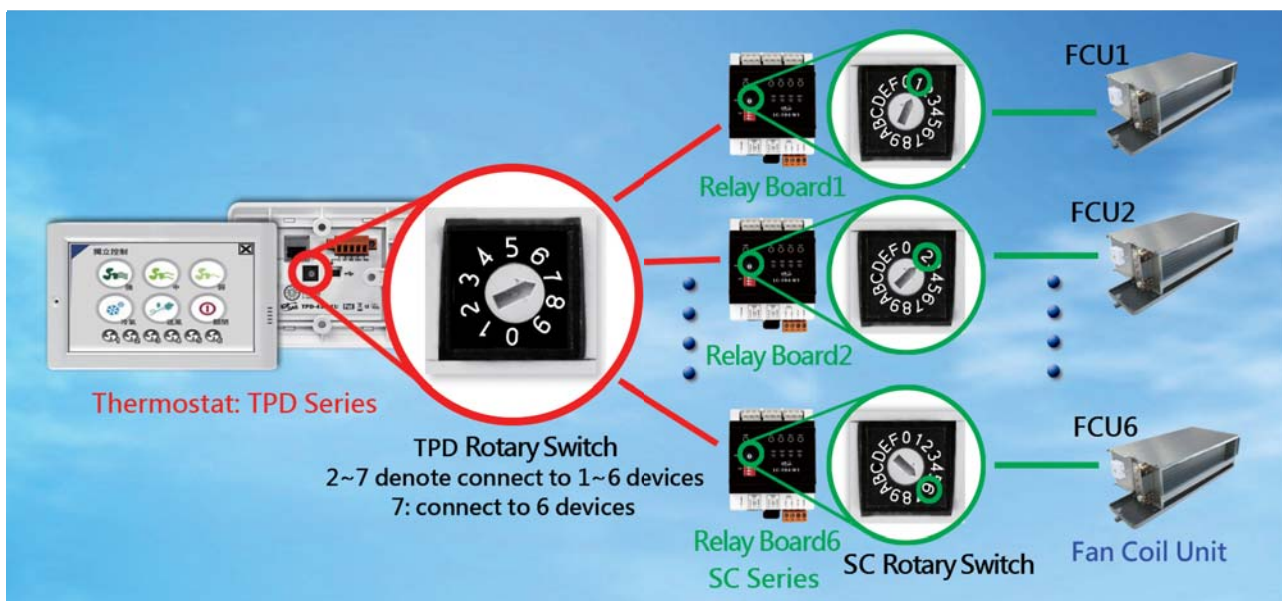
## Features



- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>7"/4.3" color LCD touch screen</li> <li>Real Time Clock (RTC)</li> <li>No programming required - with preloaded interface and control procedures</li> <li>Open architecture, the users can develop their own</li> <li>One-to-one or one-to-many architecture</li> <li>Support remote setting and control</li> </ul> | <ul style="list-style-type: none"> <li>Support schedule and holiday settings</li> <li>Sensors for temperature compensation</li> <li>Delay protection for airflow switching</li> <li>Delay of power output</li> <li>Test button to check wiring deployment</li> <li>Can operate touch screen through gloves</li> <li>Multiple operating modes</li> </ul> |
|--|---|

## One-to-many Architecture to Quickly Build a System

A TPD supports up to six SC series control modules, to set up how many SC series control modules to be connected to one loop, just adjust the rotary switch (2 to 7) on the back of the TPD (2 to 7 indicates connecting to 1 to 6 relay boards), and then set up the loop address (1, 2, 3, 4, 5, 6) on the front of each SC series control module to complete the settings.

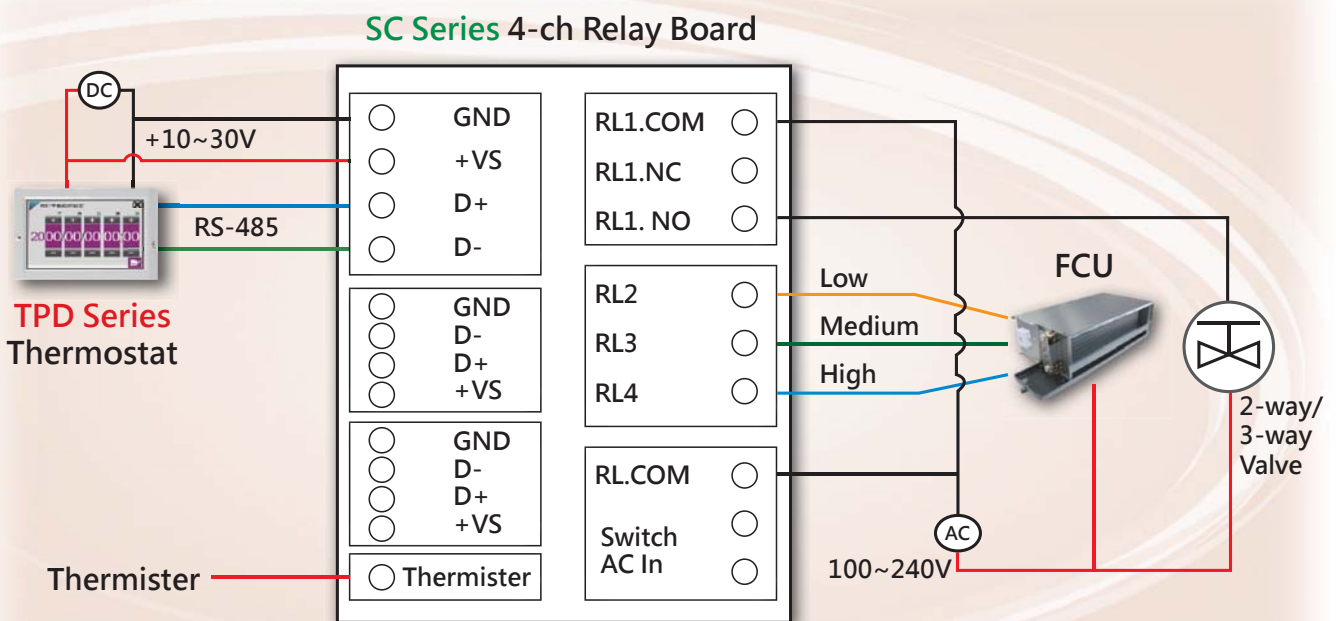


## 🏠 No Programming Required & Intuitive Interface

The TPD preloads 15 operation pages with full-range features. With the intuitive interfaces, no programming is required for users to set up operations such as adjusting temperature or start/stop the FCU. In addition, the preloaded interfaces also make it easy for operations in schedule setting, temperature compensation and remote control, etc.




## 🏠 Wiring Diagram



## Selection Guide

**TPD -** XX X(X) - XX


**SC -** X **1** XX - **W** X



**Touch screen size**  
43: 4.3 inch  
70: 7.0 inch

**Communication interface**  
3: RS-485 + Ethernet (4.3")  
RS-485/RS-232 + Ethernet (7")

**EU: for European**  
86 x 86 mm  
outlet box  
64: 64 BM



**Hardware size (mm)**  
4: 72 x 100 x 59  
6: 116 \* 122 \* 64

**Relay numbers**  
04: 4 Relays  
05: 5 Relays

**Wx: suitable wattage**  
W1: for 100W or less  
W5: for 500W or less

## Ordering Information

Thermostat	
TPD-433 CR	4.3" Color Touch Screen Thermostat, with PoE, RTC (RoHS) Suitable for the Outlet Box in United States
TPD-433-EU CR	4.3" Color Touch Screen Thermostat, with PoE, RTC (RoHS) Suitable for the European 86 x 86 mm Outlet Box
TPD-703 CR	7" Color Touch Screen Thermostat, with PoE, RTC (RoHS) 16 MB SDRAM / 16 MB Flash
TPD-703-64 CR	7" Color Touch Screen Thermostat, with PoE, RTC (RoHS) 64 MB SDRAM / 64 MB Flash,

Relay Board	
SC-4104-W1 CR	4-channel Power Panel, support 3-stage small fan-coil unit, power consumption 100 W or less, and a cold (or hot) valve (RoHS)
SC-6104-W5 CR	4-channel Power Panel, support 3-stage small fan-coil unit, power consumption 500 W or less, and a cold (or hot) valve (RoHS)
▷ SC-6105-W5 CR	5-channel Power Panel, support 3-stage small fan-coil unit, power consumption 500 W or less, and a cold & a hot valves (RoHS)
▷ SC-4104-W1-AC CR	4-channel Power Panel, support 3-stage small fan-coil Unit, power consumption 100 W or less, a cold (or hot) valve, and AC power supply (RoHS)
▷ SC-6104-W5-AC CR	4-channel Power Panel, support 3-stage small fan-coil unit, power consumption 500 W or less, a cold (or hot) valve, and AC power supply (RoHS)
▷ SC-6105-W5-AC CR	5-channel Power Panel, support 3-stage small fan-coil unit, power consumption 500 W or less, a cold & a hot valves, and AC power supply (RoHS)

▷ Will be available

## BMS(Building Management System) Ordering Information

<b>BMS Development Package for Windows</b>	BMS development package can generate applications for Windows, Windows Embedded and Windows Embedded CE
<b>BMS Runtime Package for Windows</b>	BMS runtime package for Windows, Windows Embedded
<b>BMS Runtime Package for WinCE</b>	BMS runtime package for Windows Embedded CE