

# Tiny Wi-Fi Thermistor Input Module



## Introduction

The tWF-TH8 module have 8 channel Thermistor input as WLAN connection complies with the IEEE802.11b/g/n standards. With the popularity of 802.11 network infrastructure, the tWF-AD5 module make an easy way to incorporate wireless connectivity into monitoring and control systems. They also support Modbus TCP protocol and the network encryption configuration, which makes perfect integration to SCADA software or HMI Modbus APP and offer easy and safe access for users from anytime and anywhere.

## System Specifications

| Communication                          |   |
|--|---|
| Interface                              | Wi-Fi 2.4G  |
| Standard                               | IEEE 802.11 b/g/n   |
| Encryption                             | WEP, WPA/WPA2-PSK   |
| Mode                                   | Access Point (AP) & Station (STA)   |
| IP Configuration                       | DHCP Server (AP, 1 client), DHCP Client, Static IP (STA)                    |
| Service                                | TCP, HTTP, Modbus TCP   |
| LED Indicators                         |   |
| Power                                  | One 2 colors LED, Blue for System status, Red for Connective status/Locator |
| Isolation                              |   |
| Intra-module Isolation, Field-to-Logic | 2500 Vdc  |
| EMS Protection                         |   |
| ESD (IEC 61000-4-2)                    | ±2 kV Contact for Each Terminal<br>±3 kV Air for Random Point               |
| EFT (IEC 61000-4-4)                    | ±4 kV for Power   |
| Power Requirements                     |   |
| Reverse Polarity Protection            | Yes   |
| Powered from Power Jack                | 9 ~ 48 VDC  |
| Consumption                            | 0.84 W Max.   |
| Mechanical                             |   |
| Dimensions (W x L x H)                 | 52 mm x 97 mm x 27 mm   |
| Installation                           | DIN-Rail Mounting   |
| Environment                            |   |
| Operating Temperature                  | -20 ~ +75°C   |
| Storage Temperature                    | -30 ~ +75°C   |
| Humidity                               | 10 ~ 95% RH, Non-condensing   |

## Features

- Wi-Fi communication remote Analog Input module.
- Both Access Point (AP) & Station (STA) mode support
- PC utility, Android APP, Web browser support (HTML)
- MODBUS TCP support
- Wide power supply range
- Wide operating temperature range
- Default 13 NTC Thermistor Types
- 8 User-defined NTC Thermistor Types
- 16 bit resolution
- Cost-effective



## Applications

- Building Automation
- Security Automation
- Machine Automation
- Factory Automation
- Testing Equipment
- Food and Beverage Systems
- Semiconductor Fabrication

## Software Utility

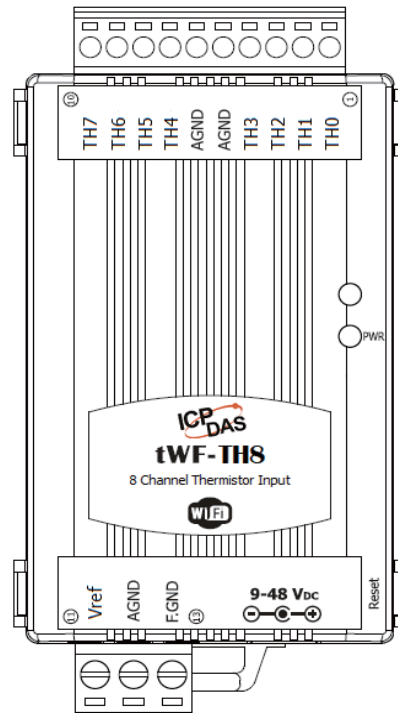
| OS          | Access Point(AP) | Station(STA)             |
|-------------|------------------|--------------------------|
| Windows     | Utility          | IP Scanner (1) & Utility |
| Android     | APP              | IP Scanner (1) & APP     |
| Web Browser | Yes              | Yes                      |
| Modbus TCP  | Yes (2)          | Yes (2)                  |

- (1) Free IP Scanner  
(2) PC or Android Freeware

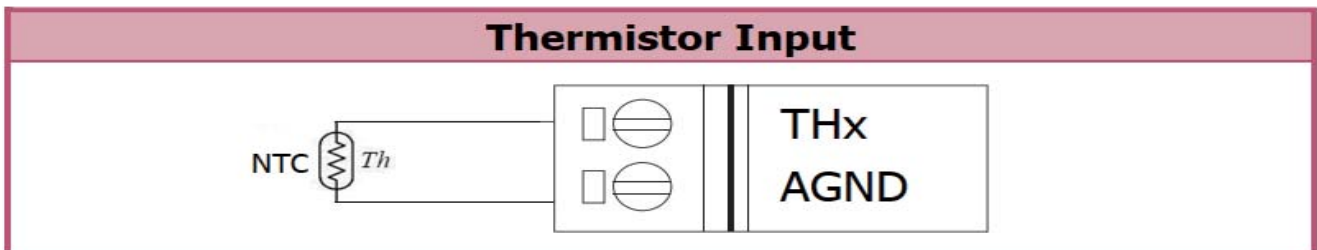
## I/O Specifications

| Model           | tWF-AD5  |
|-----------------|--|
| Analog Input    |  |
| Input Channel   | 8  |
| Type            | NTC Thermistor   |
| Thermistor Type | Precon ST-A3, Fenwell U -50~150°C, Fenwell U 0~150°C, YSI L100, YSI L300, YSI L1000, YSI B2252, YSI B3000, YSI B5000, SI B6000, YSI B10000, YSI H10000, YSI H30000, User-defined |
| Resolution      | 16-bit   |
| Sampling Rate   | 8Hz(Max) total   |
| Accuracy        | +/-1%  |

## Pin Assignments



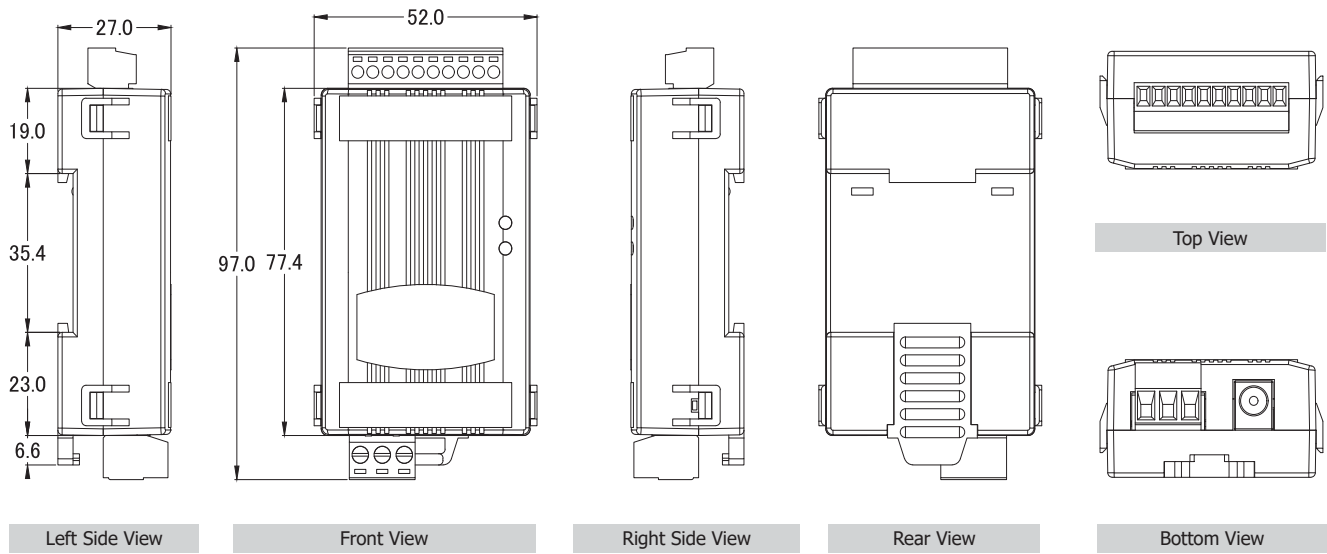
## Wire Connections



## Product Photo



### ■ Dimensions (Units: mm)



### ■ Ordering Information

|                   |  |
|-------------------|--|
| <b>tWF-TH8 CR</b> | 8-channel Thermistor Input Module (RoHS) |
|-------------------|--|