


# tWF-TH8

Tiny Wi-Fi I/O Module with 8-ch Thermistor Input (Asia Only)

## Features

- Wi-Fi communication remote I/O controller.
- Both Access Point(AP) & Station(STA) mode support
- PC utility, Android APP, Web browser support(HTML)
- MODBUS TCP support
- Default 13 NTC Thermistor Types
- 8 User-defined NTC Thermistor Types
- 16 bit resolution
- Wide power supply range: 9 ~ 48 VDC
- Cost-effective

## Introduction

The tWF-TH8 module have 8 channels Thermistor input as WLAN connection complies with the IEEE802.11b/g/n standards. With the popularity of 802.11 network infrastructure, the tWF-TH8 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

| | |
|---|---|
| **Isolation** | |
| Intra-module Isolation | 3000 VDC |
| **EMS Protection** | |
| EFT (IEC 61000-4-4) | ±4 kV for Power |
| EFT (IEC 61000-4-2) | ±4 kV Contact for Each Terminal<br>±8 kV Air for Random Point |
| **LED Indicators** | |
| Status | 1 x Power, 1 x Status |
| **Wi-Fi** | |
| Standards | IEEE 802.11 b/g/n |
| Mode | Access Point (Limited AP) & Station (STA) |
| Encryption | Open,WEP, WPA2 |
| Data Rate | Data Rate, 2.4 GHz |
| **Power** | |
| Reverse Polarity Protection | Yes |
| Input Range | +9 VDC ~ +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 |
| **Environmental** | |
| Operating Temperature | -25 ~ +75°C |
| Storage Temperature | -30 ~ +75°C |
| Humidity | 10 ~ 95% RH, Non-condensing |

## Applications

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

## Software Utility

| OS | Access Point (AP) | Station (STA) |
|---|---|---|
| Windows | Utility | IP Scanner (Free IP Scanner) & Utility |
| Android | APP | IP Scanner (Free IP Scanner) & APP |
| Web Browser | Yes | Yes |
| Modbus TCP | Yes, PC or Android Freeware | Yes, PC or Android Freeware |

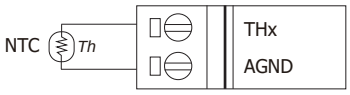
## I/O Specifications

| **Analog Input** | |
|---|---|
| Channels | 8 |
| Type | NTC Thermistor |
| Resolution | 16-bit |
| Accuracy | ±1% |

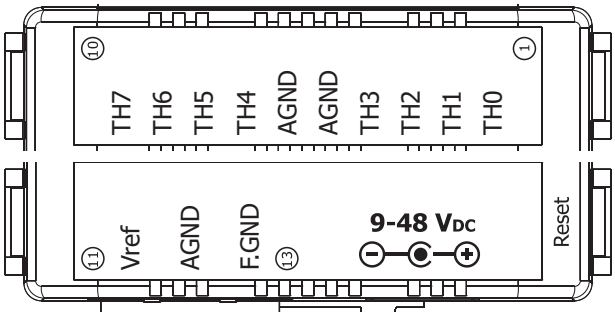
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## Wire Connections

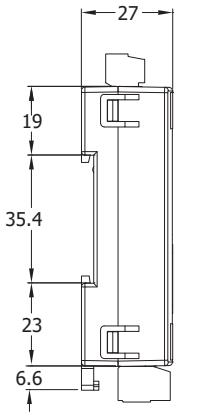
**Thermistor Input**



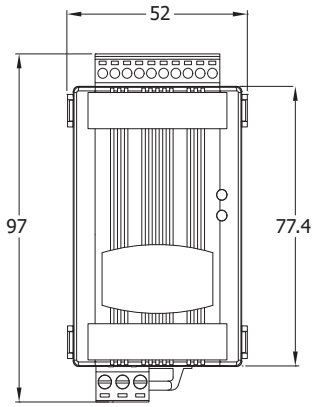

## Pin Assignments




## Dimensions (Units: mm)




Left Side View




Front View

## Ordering Information

| | |
|---|---|
| **tWF-TH8 CR** | Tiny Wi-Fi I/O Module with 8-ch Thermistor Input (RoHS) (Asia Only) (RoHS) |

## Accessories

| | |
|---|---|
|  CA-TM-P100-L020 CR | NTC Thermistor, Epoxy Resin Cable, 2 M (-40 °C ~ +80 °C) (RoHS) |
|  CA-TM-P100-L050 CR | NTC Thermistor, Epoxy Resin Cable, 5 M (-40 °C ~ +80 °C) (RoHS) |
|  CA-002 CR | DC jack to 2-wire Power Cable, 30 cm (RoHS) |
|  MDR-20-24 CR | Power Supply, 85 ~ 264 VAC to 24 VDC/1A, 24 W, DIN-rail mounting (RoHS) |
|  FRA05-S12-SU CR | Power Supply, 110 ~ 240 VAC to 12VDC/0.58A, 7 W, two pins USA plug (RoHS) |

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