Tiny Wi-Fi Multi Function Controller



tWF-DA1PD2R1

1-channel Analog Output, 2-channel Digital Input and 1-channel Relay Output Module

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
- Wide power supply range
- Wide operating temperature range
- Photo couple Isolation input, Relay Isolation output
- Digital input 32-bit counter
- 0~10V 12 bit 4096 resolution DA Converter output
- Simplify Light control function

Introduction

The tWF-DA1PD2R1 controller have WLAN connection complies with the IEEE802.11b/g/n standards. With the popularity of 802.11 network infrastructure, the tWF-DA1PD2R1 controller 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, HMI Modbus APP and offer easy and safe access for users from anytime and anywhere.

Applications

- Building Automation
- Security Automation
- Machine Automation
- Factory Automation
- Remote Diagnosis
- Remote Maintenance
- Simplify Light control system
- Testing Equipment

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	3000 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal
	±8 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	0.7 W Max.
Mechanical	
Dimensions (W x L x H)	52 mm x 97 mm x 27 mm
Installation	DIN-Rail Mounting
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +75°C
Humidity	10 ~ 95% RH, Non-condensing

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)

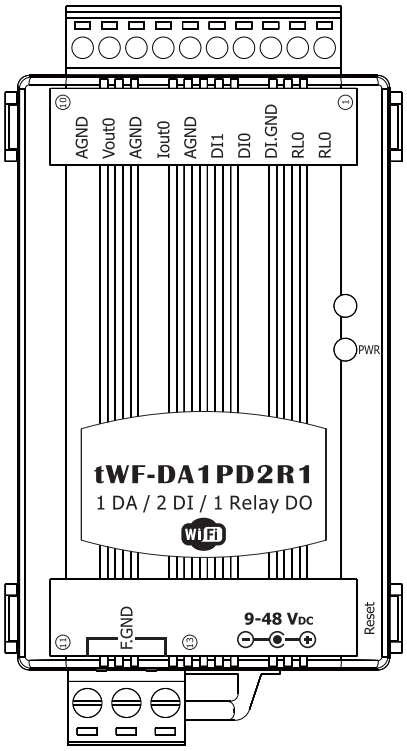
(1) Free IP Scanner
(2) PC or Android Freeware

I/O Specifications

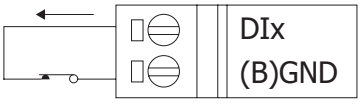
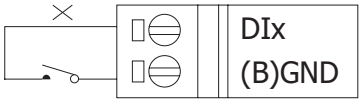
Model		tWF-DA1PD2R1
Analog Output		
Channels		1
Type		0 ~ 10 V, 0 ~ 20 mA, 4 ~ 20 mA
Resolution		12-bit
Accuracy		+/-0.1% of FSR
DA Output Response Time		10ms
Voltage Output Capability		20mA
Current Load Resistance		500Ω
Digital Input		
Channels		2
Input Type		Dry Contact: Sink
Dry Contact Level		Off Voltage Level: Open On Voltage Level: Close to GND
Counters	Channels	2
	Max. Counts	32-bit (4294967295)
	Max. Input Frequency	20 HZ
Photo-Isolation		3750 VDC
Digital Output		
Channels		1
Output Type		Form A Relay
Contact Rating (Resistive Load)		DC 30V/5A AC 250V/5A
Relay Operate Time		5 ms (Max.)
Relay Release Time		5 ms (Max.)

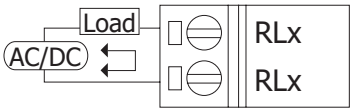
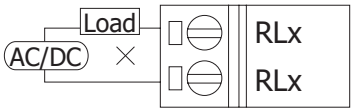
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Pin Assignments

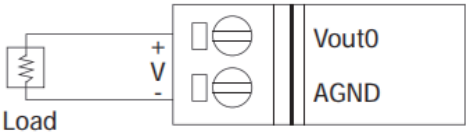


Wire Connections

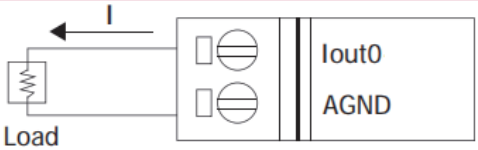
Digital Input wiring		
Digital Input/Counter	**ON State**	**OFF State**
Dry Contact	Close to GND	OPEN
		

Digital Output Relay wiring		
	ON State	**OFF State**
Form A Ralay		

Analog Voltage Output wiring

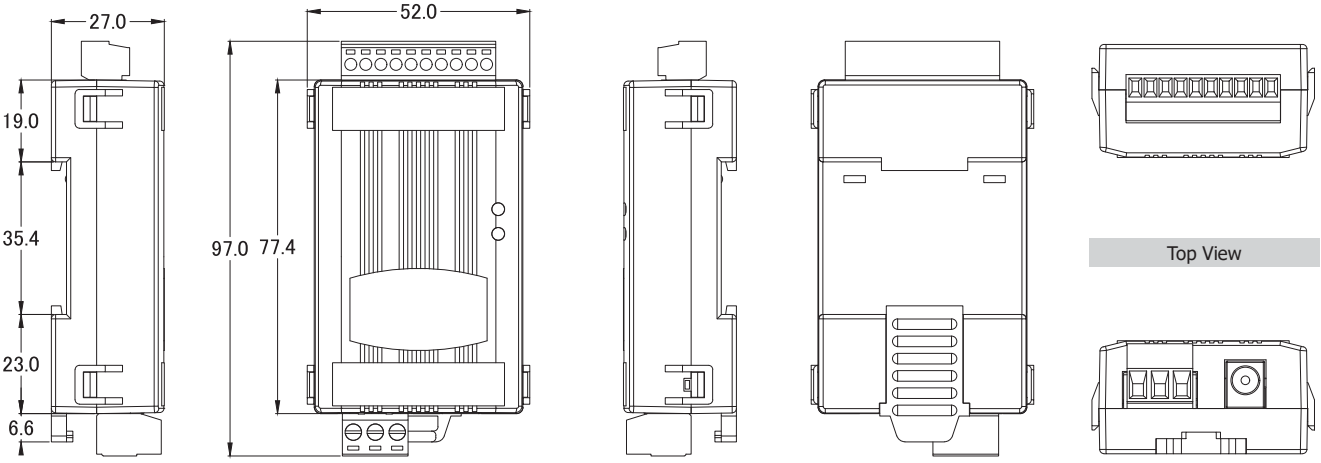


Analog Current Output wiring



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Dimensions (Units: mm)



Left Side View | Front View | Right Side View | Rear View | Top View | Bottom View

Ordering Information

tWF-DA1PD2R1 CR	1-channel DA Output, 2-channel Isolated Dry Digital Input, 1-channel Relay Output Module (RoHS)

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