ICP DAS

Features

- Compatible with IEEE 802.11a/b/g/n standards
- Support WEP, WPA and WPA2 wireless encryption
- Support Modbus TCP protocols
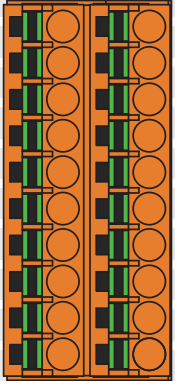- Built-in Watchdog
- Built-in I/O
  - AI: 5 Channels
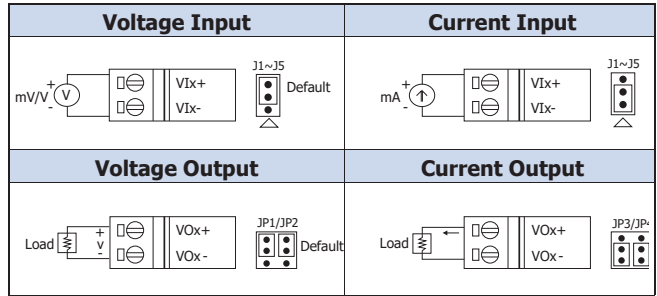 - AO: 2 Channels
  - DI/Counter: 2 Channels
  - DO: 3 Channels

WF-2226
Wi-Fi I/O Module with 5-ch AI, 2-ch AO, 2-ch DI and 3-ch DO
(Asia Only)

Introduction

The WF-2226 is a multifunction module with dual bands 2.4/5 GHz Wi-Fi interface that includes 5 analog input channels, 2 analog output channels, 2 digital input channels and 3 digital output channels. It provides a programmable input range on all analog input (+/-150 mV, +/-500 mV, +/-1 V, +/-5 V, +/-10 V, +/-20 mA or 0 ~ +20 mA) and output range on al analog output (12-bit at +/-5 V, +/-10 V, 0 ~ +20 mA or +4 ~ +20 mA). Each analog input and output channel can be configured for an individual range and provides a high overvoltage protection of 240 Vrms. Analog Input and output can be jumper selectable as either voltage or current. With the popularity of 802.11 network infrastructure, the WF-2226 makes an easy way to incorporate wireless connectivity into monitoring and control systems. The WF-2226 also supports Modbus TCP protocol and the network encryption configuration, which makes perfect integration to SCADA software and offer easy and safe access for users from anytime and anywhere.

Specifications

Isolation

Intra-module Isolation	Power: 3000 VDC DO: 3750 VDC DI: 3750 VDC

Wi-Fi

Transmission Distance (LoS)	50 meters (LOS)
Standard	IEEE 802.11 a/b/g/n
RX Sensitivity	-95 dBm @ 2.4 GHz -90 dBm @ 5 GHz
Output Power	15 dBm (Max.)
Operation Mode	Infrastructure & Limit-AP
Encryption	WEP, WPA and WPA2
Antenna	Omni-Directional 3 dBi @ 2.4 GHz 5.5 dBi @ 5 GHz

Analog Input

Channels	5 (Differential)	
Type	Voltage Current	
Range	Voltage: ±150 mVDC, ±500 mVDC, ±1 VDC, ±5 VDC, ±10 VDC Current: 0 ~ +20 mA, +4 ~ +20 mA, ±20 mA (Jumper Selectable)	
Resolution	16-bit	
Accuracy	±0.1% of FSR	
Sampling Rat	10 Hz (Total)	
Input Impedance	Voltage: 2 MΩ	Current: 140 Ω
Common Mode Rejection	86 dB Min	

Analog Input

Normal Mode Rejection	100 dB
Overvoltage Protection	240 Vrms
Overcurrent Protection	Yes, 50 mA @ 110 VDC
Individual Channel Configuration	Yes
Zero Drift	±20 µV/°C
Span Drift	±25 ppm/°C

Analog Output

Channels	2
Type	Voltage: +0 ~ +5 VDC, +0 ~ +10 VDC, ±5 VDC, ±10 VDC Current: +0 ~ +20 mA, +4 ~ +20 mA (Jumper Selectable)
Resolution	12-bit
Accuracy	±0.1% of FSR
Voltage Output Capability	10 VDC @ 20 mA
Power-on Value	Yes, Programmable
Safe Value	Yes, Programmabl

Digital Input/Counter

Channels	2
Type	Dry Contact
Sink/Source (NPN/PNP)	Source
ON Voltage Level	Close to GND
OFF Voltage Level	Open

Digital Output

Channels	3
Sink/Source (NPN/PNP)	Sink (NPN)
Load Voltage	+3.5 ~ +50 V
Load Current	700 mA per channe
Overvoltage Protection	60 VDC
Short-circuit Protection	Yes
Power on Value	Yes, Programmable
Safe Value	Yes, Programmable

Power

Input Range	+10 VDC ~ +30 VDC
Consumption	2.2 W

Mechanical

Dimensions (mm)	33 x 127 x 107 (W x L x H) (Without antenna)
Installation	DIN-Rail Mounting

Environment

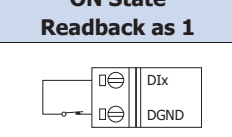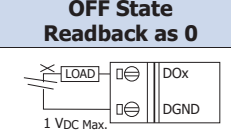|	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	30 ~ +80 °C
Humidity	10 ~ 90% RH, Non-condensing
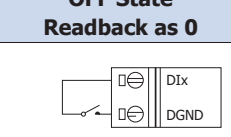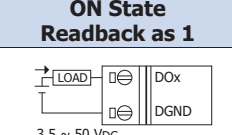
Dimensions (Units: mm)

Pin Assignment	Terminal No.		Pin Assignment
VI0-	20	19	V10+
VI1-	18	17	V11+
V12-	16	15	V12+
V13-	14	13	V13+
V14-	12	11	V14+
VO0-	10	09	VO0+
VO1	08	07	VO1+
D10	06	05	DO0
D11	04	03	DO1
DGND	02	01	DO2

Wire Connections

Voltage Input	Current Input
mV/V (V) +/- VIx+ VIx- J1~J5 Default	mA +/- VIx+ VIx- J1~J5

Voltage Output	Current Output
Load +/- V VOx+ VOx- JP1/JP2 Default	Load VOx+ VOx- JP3/JP4

Digital Input	ON State Readback as 1	OFF State Readback as 0
Dry Contact (Source)	DIx DGND	DIx DGND

Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)	LOAD DOx DGND 3.5 ~ 50 VDC	LOAD DOx DGND 1 VDC Max.

Pin Assignments

37.2
35.6
37.2
7.0
107.0
134.0±0.5

Left View

150.0
127.0
110.0
245.0±0.5
33.0

Front View

Applications

Wi-Fi (2.4G/5G)

Smart Device

Current
Voltage
AI
AO
Current
Voltage

Isolated DO
Alarms, Fans, Heaters....
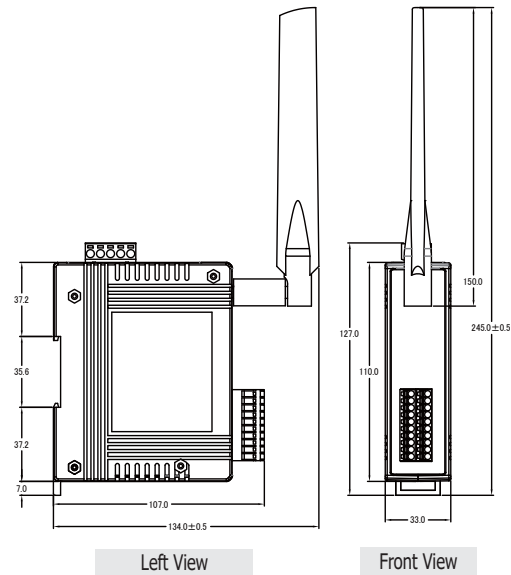
Isolated DI
Switches, Buttons...

Ordering Information

WF-2226 CR	Wi-Fi I/O Module with 5-ch AI, 2-ch AO, 2-ch DI and 3-ch DO (Asia Only) (RoHS) Includes ANT-225-5 Antenna and CA-0910 Cable

Accessories

	3S001-1 CR	Antenna Extension Cable, RG58A/U, RP-SMA Male to RP-SMA Female, 1 M (RoHS)
	3S003-1 CR	Antenna Extension Cable, RG58A/U, RP-SMA Male to RP-SMA Female, 3 M (RoHS)
	3S005-1 CR	Antenna Extension Cable, RG58A/U, RP-SMA Male to RP-SMA Female, 5 M (RoHS)
	3S008-1 CR	Antenna Extension Cable, RG58A/U, RP-SMA Male to RP-SMA Female, 8 M (RoHS)