



## WF-2015

Wi-Fi I/O Module with 6-ch RTD Input (Asia Only)

### Introduction

The WF-2015 is a Wi-Fi interface and 6-channel RTD input module for long-distance temperature measurement, and features automatic compensation for three-wire RTD sensor, meaning that accurate measurements can be obtained regardless of the length of the wires. With the popularity of 802.11 network infrastructure, the WF-2015 makes an easy way to incorporate wireless connectivity into monitoring and control systems. The WF-2015 also supports Modbus/TCP and UDP protocols and the network encryption configuration, which makes perfect integration to SCADA software and offer easy and safe access for users from anytime and anywhere.

### System Specifications

Isolation	
Intra-module Isolation	3000 Vdc
Wi-Fi	
Transmission Range	50 meters (LOS)
Standards	IEEE 802.11 b/g (non-RevB version) IEEE 802.11 b/g/n (RevB version)
Receive Sensitivity	-83 dBm @ 11 Mbps (non-RevB version) -93 dBm @ 11 Mbps (RevB version)
Output Power	8 dBm @ 11 Mbps (non-RevB version) 14 dBm @ 11 Mbps (RevB version)
Mode	Infrastructure & Ad-hoc (non-RevB version) Infrastructure & Limit-AP (RevB version)
Encryption	WEP, WPA and WPA2
Antenna	5 dBi (Omni-Directional)
Power	
Input Range	+10 Vdc ~ +30 Vdc
Consumption	1.44 W
Mechanical	
Dimensions (W x L x H)	33 mm x 127 mm x 107 mm (Without antenna)
Installation	DIN-Rail Mounting
Environmental	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-30 ~ +80 °C
Humidity	10 ~ 90% RH, Non-condensing

### Features

- 6-channel RTD Input
- 3-wire RTD Input with Lead Resistance Elimination
- Open Wire Detection
- Individual Channel Configuration
- Compatible with IEEE 802.11b/g standards
- Support WEP, WPA and WPA2 wireless encryption
- Support Modbus/TCP and UDP protocols
- Support DHCP network configuration
- 4 kV ESD/EFT Protection
- 3000 VDC Intra-module Isolation
- Built-in Watchdog



### I/O Specifications

Analog Input	
Channels	6
Type	RTD
Sensor Type	Pt100, Pt1000, Ni120, Cu50, Cu100, Cu1000
Resistance Measurement	3.2 kΩ Max.
Resolution	16-bit
Accuracy	±0.05% of FSR
Sampling Rate	12 Hz (Total)
Overvoltage Protection	+120 Vdc
Individual Channel Configuration	Yes
Open Wire Detection	Yes
3-wire RTD Lead Resistance Elimination	Yes

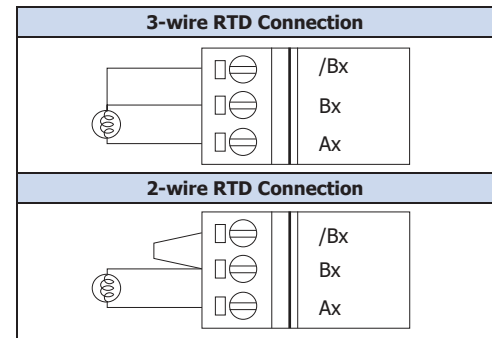
### RTD Type Settings (TT)

Type Code	RTD Type	Temperature Range
20	Platinum 100, α= 0.00385	-100 ~ +100 °C
21	Platinum 100, α= 0.00385	0 ~ +100 °C
22	Platinum 100, α= 0.00385	0 ~ +200 °C
23	Platinum 100, α= 0.00385	0 ~ +600 °C
24	Platinum 100, α= 0.003916	-100 ~ +100 °C
25	Platinum 100, α= 0.003916	0 ~ +100 °C
26	Platinum 100, α= 0.003916	0 ~ +200 °C
27	Platinum 100, α= 0.003916	0 ~ +600 °C
28	Nickel 120	-80 ~ +100 °C
29	Nickel 120	0 ~ +100 °C
2A	Platinum 1000, α= 0.00385	-200 ~ +600 °C
2B	Cu 100 at 0 °C, α= 0.00421	-20 ~ +150 °C
2C	Cu 100 at 25 °C, α= 0.00427	0 ~ +200 °C
2D	Cu 1000 at 0°C, α= 0.00421	-20 ~ +150 °C
2E	Platinum 100, α= 0.00385	-200 ~ +200 °C
2F	Platinum 100, α= 0.003916	-200 ~ +200 °C
80	Platinum 100, α= 0.00385	-200 ~ +600 °C
81	Platinum 100, α= 0.003916	-200 ~ +600 °C
82	Cu 50 at 0 °C	-50 ~ +150 °C
83	Nickel 100	-60 ~ +180 °C

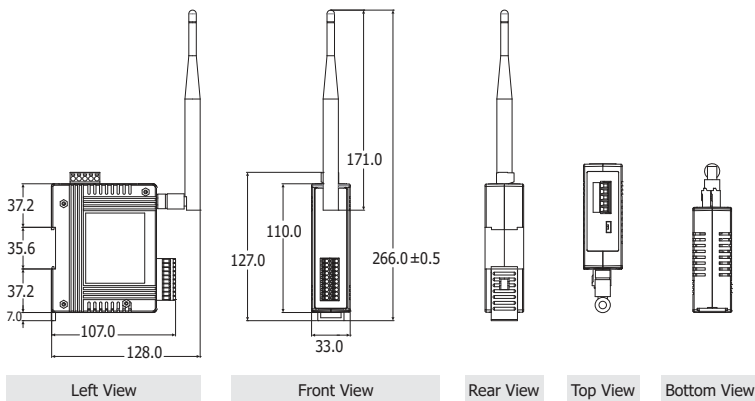
## Applications



## Wire Connections



## Dimensions (Units: mm)



## Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
A3	20	19 A0
B3	18	17 B0
/B3	16	15 /B0
A4	14	13 A1
B4	12	11 B1
/B4	10	09 /B1
A5	08	07 A2
B5	06	05 B2
/B5	04	03 /B2
N/A	02	01 N/A

## Ordering Information

<b>WF-2015 CR</b>	Wi-Fi I/O Module with 6-ch RTD Input (Asia Only) (RoHS) Includes ANT-124-05 Antenna and CA-0910 Cable
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## 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)
	ANT-8 CR	8 dBi, 2.4 GHz omni-directional antenna (RP SMA Male Plug) (RoHS)
	ANT-15 CR	15 dBi, 2.4 GHz omni-directional antenna (RP SMA Male Plug) (RoHS)
	ANT-15YG-1 CR	15 dBi, 2.4 GHz directional yagi antenna (RP SMA Male Plug) (RoHS) Includes 3S004 Cable (HDF 200 cable, N type male to RP-SMA male, 1 M)
	ANT-18 CR	18 dBi, 2.4 GHz directional panel antenna (RP SMA Male Plug) (RoHS)
	ANT-21 CR	21 dBi, 2.4 GHz directional grid antenna (RP SMA Male Plug) (RoHS)
	ANT-124-03 CR	3 dBi, 2.4 GHz omni-directional antenna (RP SMA Male Plug) (RoHS)