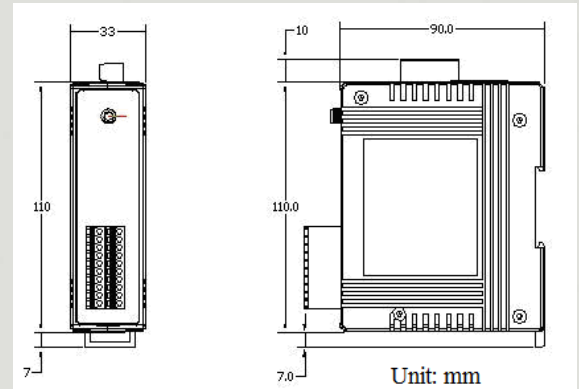# Wi-Fi Series Products

Wi-Fi Data Acquisition I/O Module (8/16 AI)

RoHS CE FC

WF-2017

Dimensions

Unit: mm
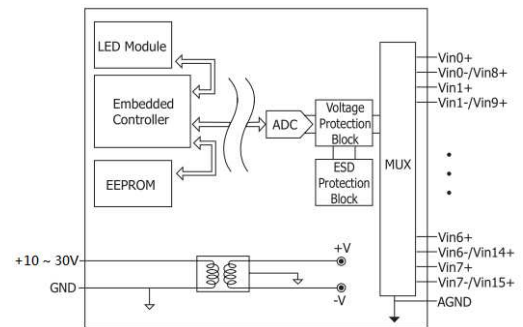
The WF-2017 is a Wi-Fi interface and 8-channel Differential/16-channel Single-Ended analog input module. The analog input range is software selectable and supports +/-10V, +/-5V, +/-1V, +/-500mV, +/-150mV, and +/-20mA. Differential and Single-ended mode is selected by jumpers. With the popularity of 802.11 network infrastructure, the WF-2017 makes an easy way to incorporate wireless connectivity into monitoring and control systems. The WF-2017 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.

Features

- 8-channel Differential Analog Input
- 16-channel Single-ended Analog Input
- Compatible with IEEE 802.11b/g standards
- Support WEP, WPA and WPA2 wireless encryption
- Support Modbus/TCP and UDP protocols
- Support DHCP network configuration
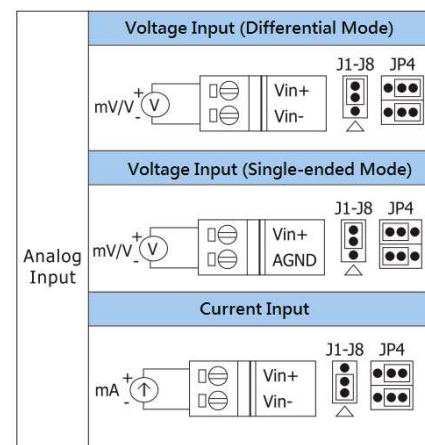- 4 kV ESD Protection
- Built-in Watchdog

Internal I/O Structure

Pin Assignment

Pin Assignment Name	Terminal No.		Pin Assignment Name
V0-/V8+	20	19	V0+
V1-/V9+	18	17	V1+
V2-/V10+	16	15	V2+
V3-/V11+	14	13	V3+
V4-/V12+	12	11	V4+
V5-/V13+	10	9	V5+
V6-/V14+	8	7	V6+
V7-/V15+	6	5	V7+
AGND	4	3	AGND
AGND	2	1	AGND

Wire Connection

Hardware Specifications

Analog Input

Channels	8-ch Differential / 16-ch Single-ended(Note), Jumper Selectable
Input Type	Voltage : ±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V
	Current : 0 ~ +20 mA, +4 ~ +20 mA, ±20 mA (Jumper Selectable)
Resolution	16 bit
Accuracy	±0.1% FSR
Sampling Rate	10 Hz (Total)
Zero Drift	±20 μV/°C
Span Drift	±25 ppm/℃
Common Mode Rejection	86 dB Min.
Normal Mode Rejection	100 dB

Input Impedance	Differential	> 2 MΩ	Single-ended	> 1 MΩ
Overvoltage protection		240 Vrms		150 Vrms

Individual Channel Configuration	Yes
Intra-Module Isolation, Field-to-Logic	3000 VDC

Wi-Fi Interface

Antenna	5 dBi (Omni-Directional)
Output Power	8 dBm @ 11Mbps
Receive Sensitivity	-83 dBm @ 11Mbps
Standard Supported	IEEE 802.11b/g
Wireless Mode	Infrastructure & Ad-hoc
Encryption	WEP, WPA and WPA2
Transmission Range	50 meters (LOS)

Isolation

Intra-module Isolation, Field-to-Logic	3000 VDC

Power

Input Voltage Range	10V ~ 30V
Power Consumption	2.2W

Mechanism

Installation	DIN-Rail
Dimensions	110mm x 106mm x 33mm (H x W x D)

Environment

Operating Temperature	-25℃ ~ +75℃
Storage Temperature	-30℃ ~ +80℃
Humidity	10% ~ 90%

Note: Differential mode can be used for voltage input and current input. Single-Ended mode can be used for voltage input only.

Applications

Ordering Information

WF-2017 CR	8-channel Differential/16-channel Single-Ended Analog Input Wi-Fi I/O Module (RoHS)