

I-87019RW

8-channel Universal Analog Input Module
with High Overvoltage Protection

Features

- 8-channel Different Analog Input
- Current, Voltage and Thermocouple Input
- Open thermocouple detection
- Wider Input Range for Voltage
- Individual Channel Configuration
- 240 Vrms Overvoltage Protection
- 4 kV ESD Protection
- 3000 VDC Intra-module Isolation, Field-to-Logic

Introduction

I-87019RW features an extremely excellent protection mechanism where Overvoltage Protectionis up to 240 Vrms. It has wider input range for voltage compared to I-87018R. I-87019RW measures voltage from ±15 mV ~ ±10 V. Its input type also includes current and thermocouple. An intuitive design is kept in this model; choosing to measure current or voltage is simply by a jumper. An external resistor is no longer needed. Eight of its input channels can individually be configured with different kinds of analog input. What's more, I-87019RW also got open thermocouple detection and many protection mechanisms.

Applications

- Building Automation
- Factory Automation
- Machine Automation
- Remote Maintenance
- Remote Diagnosis
- Testing Equipment

System Specifications

COM Port	
Ports	RS-485
Data Format	N, 8, 1
Baud Rate	1200 ~ 115200 bps
Protocol	DCON
CPU Module	
Dual Watchdog Timer	Module (1.6 Seconds), Communication (Programmable)
LED Indicators	
System LED Indicator	1
I/O LED Indicator	16
Isolation	
Intra-module Isolation, Field-to-Logic	3000 VDC
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for Each port; ±8 kV Contact for Random Point
Power	
Consumption	1.1 W Max.
Mechanical	
Dimensions (W x L x H)	115 mm x 30 mm x 102 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 95 % RH, Non-condensing

I/O Specifications

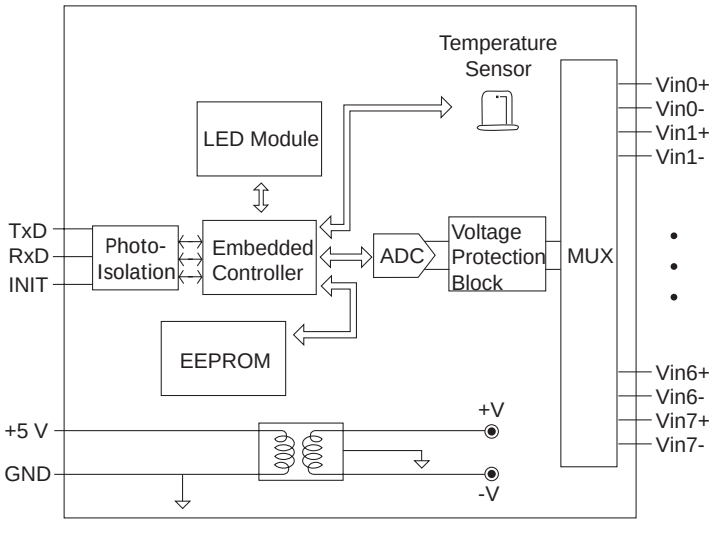
Analog Input		
Channels		8
Wiring		Differential
Sensor Type	Voltage	±15, ±50, ±100, ±150, ±500 mV, ±1, ±2.5, ±5,±10 V
	Current	-20 ~ +20 mA, 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable)
	Thermocouple	Thermocouple (J, K, T, E, R, S, B, N, C, L, M, LDIN43710)
Resolution		16-bit
Accuracy		±0.1 % of FSR
Sampling Rate		8 Hz (Total)
-3dB Bandwidth		15.7 Hz
Zero Drift		±20 μV/°C
Span Drift		±25 ppm/°C
Common Mode Rejection		113 dB
Normal Mode Rejection		100 dB
Input Impedance		Voltage: >2 MΩ, Current: 125 Ω
Individual Channel Configuration		Yes
Open Thermocouple Detection		Yes
Overvoltage Protection		240 Vrms

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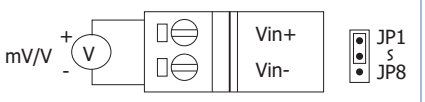
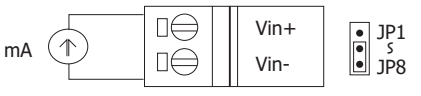
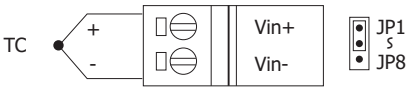
Thermocouple Type

Type Code	Type	Temperature Range
0E	J	-210 ~ + 760 °C
0F	K	-270 ~ + 1372 °C
10	T	-270 ~ + 400 °C
11	E	-270 ~ + 1000 °C
12	R	0 ~ + 1768 °C
13	S	0 ~ + 1768 °C
14	B	0 ~ + 1820 °C
15	N	-270 ~ + 1300 °C
16	C	0 ~ + 2320 °C
17	L	-200 ~ + 800 °C
18	M	-200 ~ + 100 °C
19	LDIN43710	-200 ~ + 900 °C

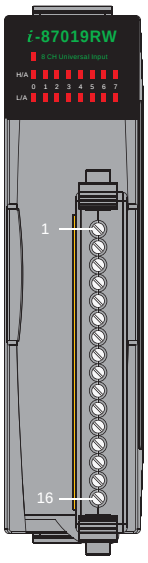
Internal I/O Structure



Wire Connections

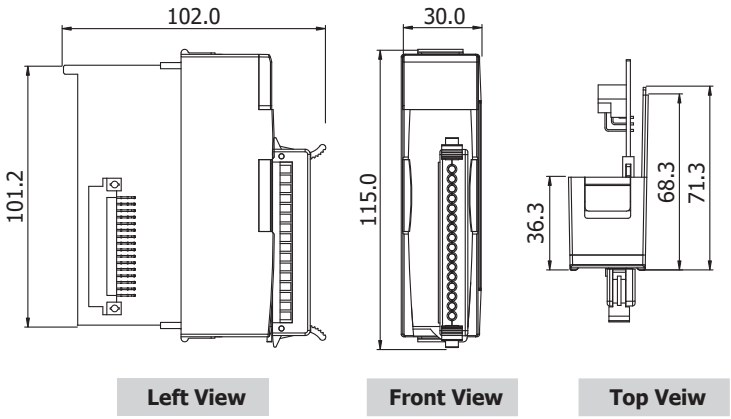
Voltage Input	Current Input	Thermocouple Input
		

Pin Assignments



Terminal No.	Pin Assignment
01	Vin0+
02	Vin0-
03	Vin1+
04	Vin1-
05	Vin2+
06	Vin2-
07	Vin3+
08	Vin3-
09	Vin4+
10	Vin4-
11	Vin5+
12	Vin5-
13	Vin6+
14	Vin6-
15	Vin7+
16	Vin7-

Dimensions (Unit: mm)



Accessories

SG-770 CR	SG-3000 Series
 7-channel Differential or 14-channel Single-ended Surge Protector (RoHS)	 Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Input

Ordering Information

I-87019RW-G CR	8-channel Universal Analog Input Module with High Voltage Protection (RoHS)

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