



I-87017W

I-87017RW

8-channel Analog Input Module with High Overvoltage Protection

Introduction

I-87017RW is an analog input module with an extremely excellent protection mechanism where Overvoltage Protection is up to 240 V_{rms}. Its input type includes both voltage and current. Naturally, I-87017RW is an upgraded version of I-87017W; the only difference is that the I-87017RW is much more suitable for critically harsh environment! The sampling rate of I-87017RW is changeable; there are fast mode and normal mode for your consideration. I-87017RW also has qualification for 4 KV ESD protection as well as 3000 V_{dc} intra-module isolation.

System Specifications

Models	I-87017W	I-87017RW
Communication		
Interface	RS-485	
Format	N, 8, 1	
Baud Rate	1200 ~ 115200 bps	
Protocol	DCON	
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)	
LED Indicator/Display		
System LED Indicator	1 LED as Power/Communication Indicator	
I/O LED Indicator	16 LEDs as High/Low Alarm Signals	
Isolation		
Intra-Module Isolation, Field-to-Logic	3000 V _{dc}	
EMS Protection		
ESD (IEC 61000-4-2)	4 kV Contact for Each Terminal	
	8 kV Air for Random Point	
Power		
Power Consumption	1.3 W Max.	
Mechanical		
Dimensions (W x L x H)	30 mm x 102 mm x 115 mm	
Environment		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-40 ~ +85°C	
Humidity	10 ~ 95% RH, Non-condensing	

Features

- Voltage and Current Inputs
- 240 V_{rms} Overvoltage Protection
- Changeable Sampling Rate
- 4 kV ESD Protection
- 3000 V_{dc} Intra-module Isolation
- RoHS Compliant
- Wide Operating Temperature Range: -25 ~ +75°C



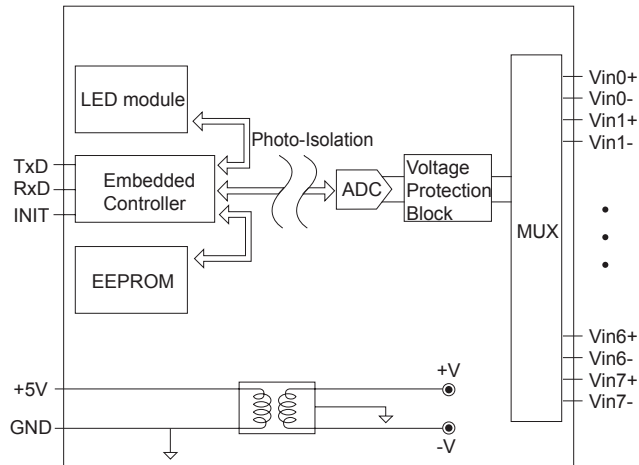
Applications

Building Automation, Factory Automation, Machine Automation, Remote Maintenance, Remote Diagnosis, Testing Equipment.

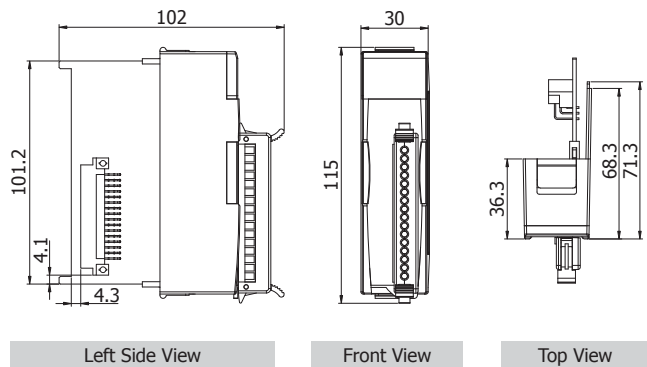
I/O Specifications

Models	I-87017W	I-87017RW	
Analog Input			
Channels	8		
Wiring	Differential		
Range	+/- 10 V _{dc} , +/- 5 V _{dc} , +/- 1 V _{dc} +/- 500 mV, +/- 150 mV 0 ~ +20 mA, +4 ~ +20 mA, -20 mA ~ +20 mA (Requires Optional External 125 Ω Resistor)		
Resolution	Normal Mode	16-bit	
	Fast Mode	12-bit	
Accuracy	Normal Mode	+/- 0.1% of FSR	
	Fast Mode	+/- 0.5% of FSR	
Sampling Rate	Normal Mode	16-bit, 10 Hz (Total)	
	Fast Mode	12-bit, 50 Hz (Total)	
-3dB Bandwidth	Normal Mode	15.7 Hz	15.7 Hz
	Fast Mode	78.7 Hz	-
Zero Drift	+/- 20 μV/°C		
Span Drift	+/- 25 ppm/°C		
Common Mode Rejection	86 dB		
Normal Mode Rejection	100 dB		
Input Impedance	20 MΩ	>2 MΩ	
Overvoltage Protection	-35 V _{dc} ~ +35 V _{dc}	240 V _{rms}	

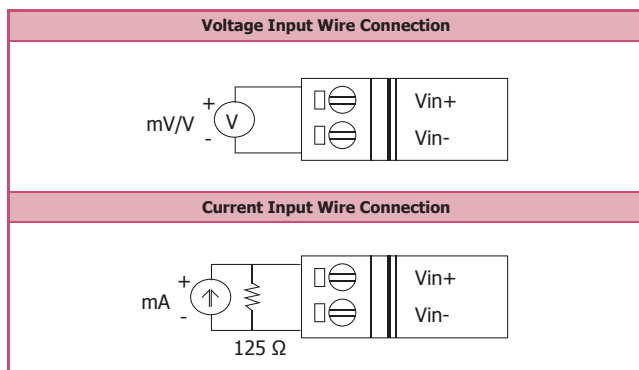
Internal I/O Structure



Dimensions (Units: mm)

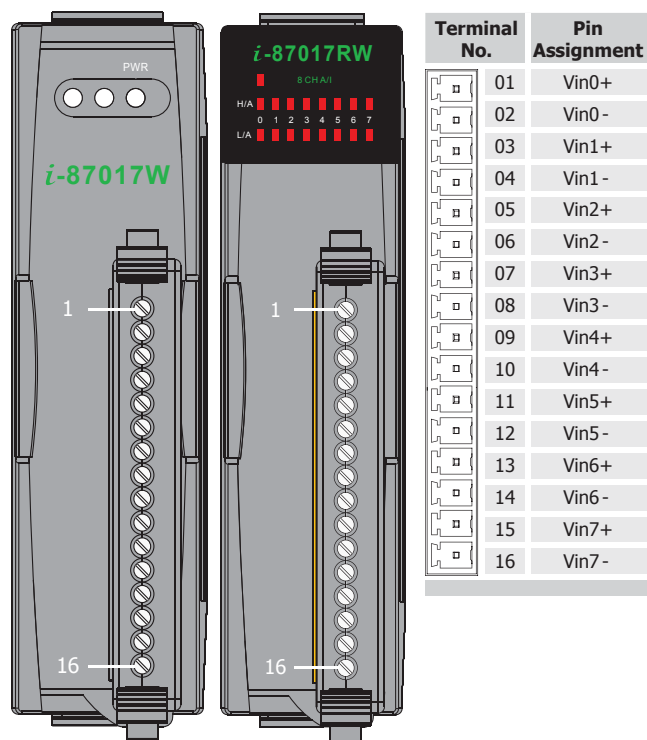


Wire Connections



Note: When connecting to a current source, an optional external 125 Ω resistor is required.

Pin Assignments



Ordering Information

I-87017W-G CR	8-channel Analog Input Module (Gray Cover) (RoHS)
I-87017RW-G CR	8-channel Analog Input Module (Gray Cover) (RoHS)

Accessories

DN-843V-600V CR	3-channel 600 V voltage attenuator (RoHS)
DN-848VI-80V CR	8-channel 80 V voltage attenuator (RoHS)
DN-848VI-150V CR	8-channel 150 V voltage attenuator (RoHS)
DN-843I-CT-1 CR	3-channel 1 A Current Transformer (RoHS)

DN-843I-CT-50 CR	3-channel 50 A Current Transformer (RoHS)
125Ω, 0.1% DIP Resistors	use for current type of I-87017/I-87018 series
SG-770 CR	7 channel differential or 14 channel single-ended surge protector (RoHS)
SG-3000 series	Signal Conditioning Modules for Thermocouple, RTD, DC Voltage, DC Current and Power Inputs