



I-87017W | I-87017RW

8-channel Analog Input Module

Features

- 8-channel Analog Input
- Voltage or Current Input
- Overvoltage Protection
 - I-87017W: ± 35 VDC
 - I-87017RW: 240 Vrms
- 4 kV ESD and EFT Protection
- 3000 VDC Intra-module Isolation



Introduction

The I-87017RW is an analog input module with an extremely high quality protection mechanism where the overvoltage protection can be as high as 240 Vrms. The input type can be set to either voltage or current. The I-87017RW is an upgraded version of I-87017W, with the only differences being that the I-87017RW is more suitable for critically harsh environment. The sampling rate for the I-87017RW is can be adjusted to either fast mode or normal mode depending on individual requirements. The I-87017RW also provides 4 kV ESD protection as well as 3000 VDC intra-module isolation.

System Specifications

| Model | I-87017W | I-87017RW |
|---|---|-----------|
| 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 LED as Power Indicator | |
| I/O LED Indicator | 16 as High/Low Alarm Signals | |
| Isolation | | |
| Intra-module Isolation, Field-to-Logic | 3000 VDC | |
| EMS Protection | | |
| ESD (IEC 61000-4-2) | ± 4 kV Contact for Each port, ± 8 kV Air for Random Poin | |
| Power | | |
| Consumption | 1.3 W Max. | |
| Mechanical | | |
| Dimensions (W x L x H) | 30 mm x 115 mm x 102 mm | |
| Environment | | |
| Operating Temperature | $-25 \sim +75$ °C | |
| Storage Temperature | $-40 \sim +85$ °C | |
| Humidity | 10 ~ 95 % RH, Non-condensing | |

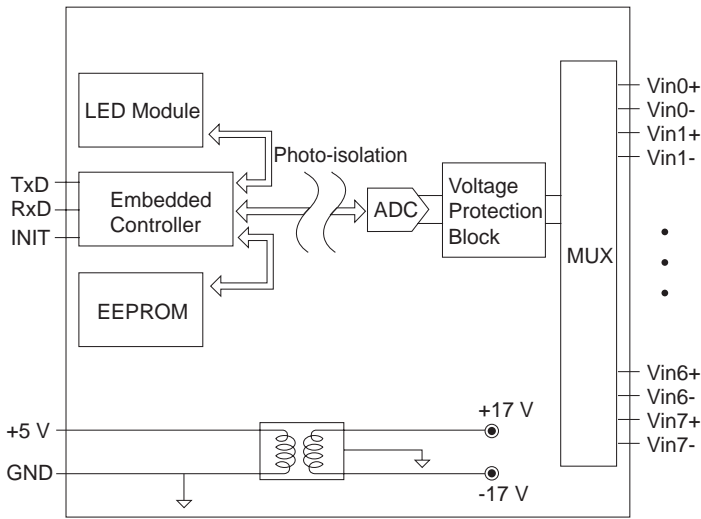
I/O Specifications

| Model | I-87017W | I-87017RW |
|------------------------|--|--------------------|
| Analog Input | | |
| Channels | 8 | |
| Wiring | Differential | |
| Range | ± 10 VDC, ± 5 VDC, ± 1 VDC, ± 500 mV, ± 150 mV, $0 \sim +20$ mA, $+4 \sim +20$ mA, -20 mA $\sim +20$ mA (Requires Optional External 125 Ω Resistor) | |
| Resolution | 16-bit | |
| Accuracy | Normal Mode | $\pm 0.1\%$ of FSR |
| | Fast Mode | $\pm 0.5\%$ of FSR |
| Sampling Rate | Normal Mode | 10 Hz (Total) |
| | Fast Mode | 50 Hz (Total) |
| 3dB Bandwidth | Normal Mode | 15.7 Hz |
| | Fast Mode | 78.7 Hz |
| Zero Drift | ± 20 μ V/°C | |
| Span Drift | ± 25 ppm/°C | |
| Common Mode Rejection | 86 dB | |
| Normal Mode Rejection | 100 dB | |
| Input Impedance | 20 M Ω | > 2 M Ω |
| Overvoltage Protection | ± 35 VDC | 240 Vrms |

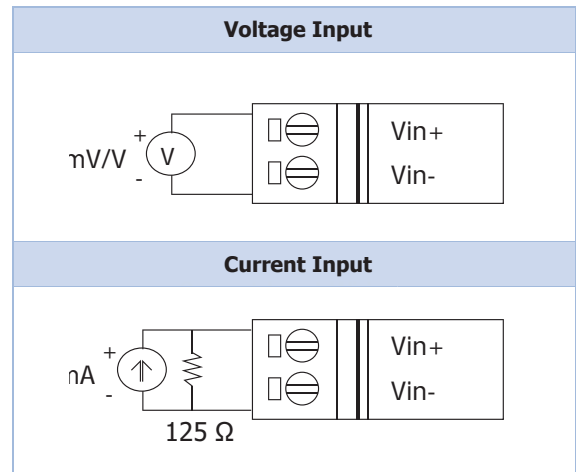
Applications

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

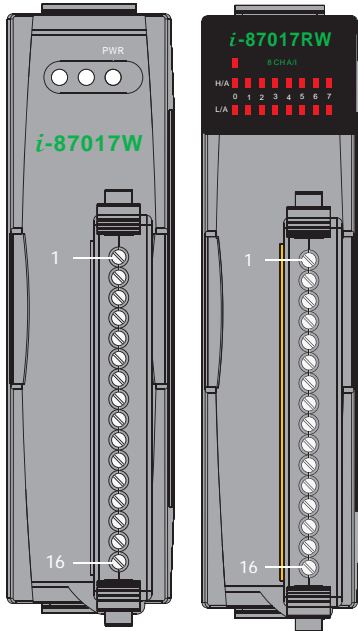
Internal I/O Structure



Wire Connections

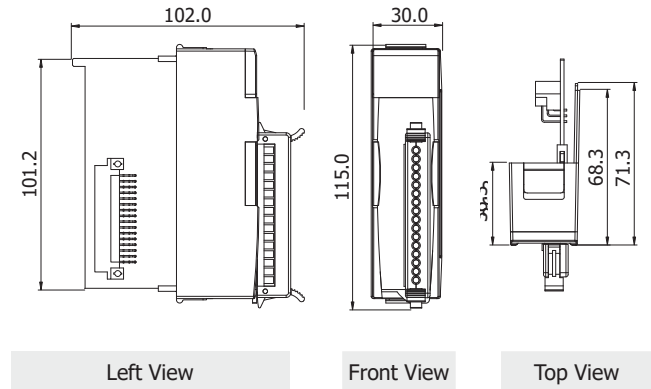


Pin Assignments




| 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



Accessories

| | |
|---|--|
|  2AB125R CR | 125 Ω, 0.1 % DIP Resistor used for Current Type Input Module |
|---|--|

Ordering Information

| | |
|-----------------------|---|
| I-87017W-G CR | 8-channel Analog Input Module (RoHS) |
| I-87017RW-G CR | 8-channel Analog Input Module with High Overvoltage Protection (RoHS) |