



Features

- High Voltage Analog Input: -150 V ~ +150 V
- Adjustable Sampling Rate
- 4 kV ESD Protection
- 3000 Vdc Intra-module Isolation
- RoHS Compliant
- Wide Operating Temperature Range: -25 to +75°C



Introduction

The I-87017W-A5 module is especially designed for high voltage input, and has an input range of between -150 V and +150 V. The sampling rate for the I-87017W-A5 is adjustable and can be switched between fast mode and normal mode depending on specific requirements. The I-87017W-A5 also features 4 kV ESD protection as well as 3000 Vdc intra-module isolation.

Applications

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

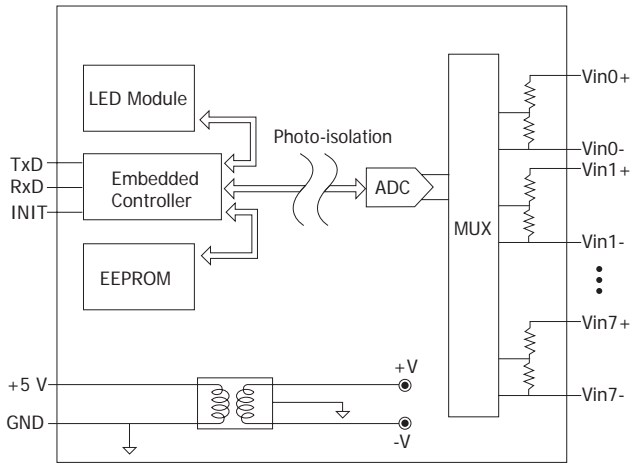
System Specifications

| Communication | |
|--|---|
| Interface | RS-485 |
| Format | N, 8, 1 |
| Baud Rate | 1200 to 115200 bps |
| Protocol | DCON |
| Dual Watchdog | Yes, Module (1.6 Seconds), Communication (Programmable) |
| LED Indicators/Display | |
| System LED Indicators | Yes, 1 as Power/Communication Indicator |
| I/O LED Indicators | 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 Terminal |
| | ±8 kV Air for Random Point |
| Power | |
| Power Consumption | 1.3 W Max. |
| Mechanical | |
| Dimensions (L x W x H) | 115 mm x 30 mm x 102 mm |
| Environment | |
| Operating Temperature | -25 to +75°C |
| Storage Temperature | -40 to +85°C |
| Humidity | 10 to 95% RH, Non-condensing |

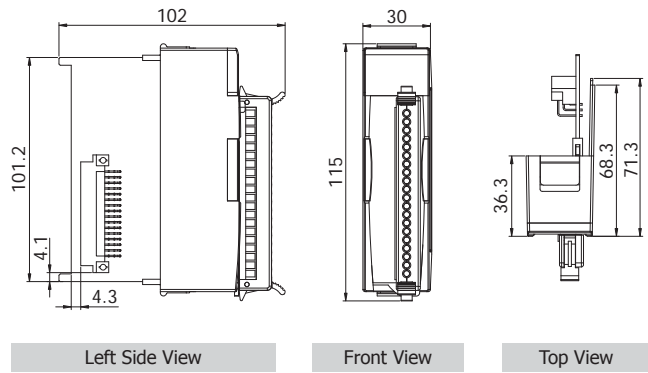
I/O Specifications

| Analog Input | | |
|------------------------|---------------------|-----------------------|
| Channels | 8 | |
| Wiring | Differential | |
| Range | ±50 Vdc, ±150 Vdc | |
| Resolution | Normal Mode | 16-bit |
| | Fast Mode | 12-bit |
| Accuracy | Normal Mode | ±0.1% of FSR |
| | Fast Mode | ±0.25% of FSR |
| Sampling Rate | Normal Mode | 16-bit, 10 Hz (Total) |
| | Fast Mode | 12-bit, 50 Hz (Total) |
| -3dB Bandwidth | 15.7 Hz | |
| Zero Drift | ±20 µV/°C | |
| Span Drift | ±25 ppm/°C | |
| Common Mode Rejection | 86 dB | |
| Normal Mode Rejection | 100 dB | |
| Input Impedance | 290 kΩ | |
| Overvoltage Protection | -200 Vdc ~ +200 Vdc | |

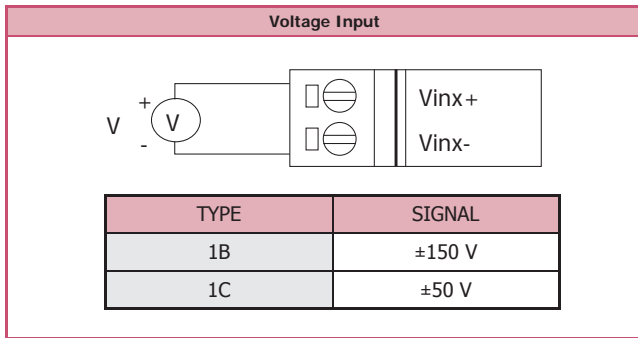
Internal I/O Structure



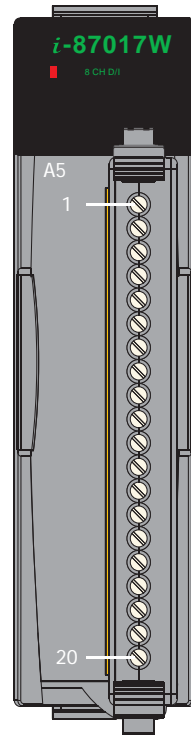
Dimensions (Units: mm)



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- |
| 17 | AGND |
| 18 | AGND |
| 19 | FG |
| 20 | FG |

Ordering Information

| | |
|-------------------------|---|
| I-87017W-A5-G CR | 8-channel High Voltage Input Module using the DCON protocol (Gray Cover) (RoHS) |
|-------------------------|---|

Accessories

| | |
|--|--|
|  SG-770 CR | 7-channel Differential or 14-channel Single-ended Surge Protector (RoHS) |
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