



Analog Input

RS-485 Remote I/O Modules



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.

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



Applications

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

I-87KW Series

System Specifications

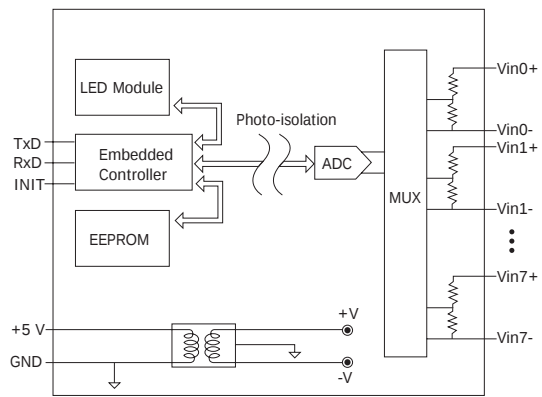
Communication	
Interface	RS-485
Format	N, 8, 1
Baud Rate	1200 to 115200 bps
Protocol	DCON
Dual Watchdog	Yes, Module (1.6 Seconds), Communication (Programmable)
LED Indicators/Display	
System LED Indicators	Yes, 1 as Power/Communication Indicator
I/O LED Indicators	16 as High/Low Alarm Signals
Isolation	
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

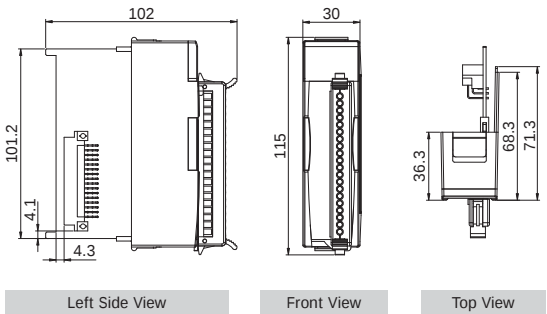
Analog Input		
Channels	8	
Wiring	Differential	
Range	±50 Vdc, ±150 Vdc	
Resolution	Normal Mode	16-bit
	Fast Mode	12-bit
Accuracy	Normal Mode	±0.1% of FSR
	Fast Mode	±0.25% of FSR
Sampling Rate	Normal Mode	16-bit, 10 Hz (Total)
	Fast Mode	12-bit, 50 Hz (Total)
-3dB Bandwidth	15.7 Hz	
Zero Drift	±20 µV/°C	
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	

I-87017W-A5

Internal I/O Structure

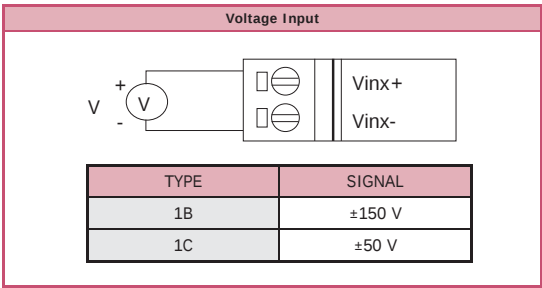


Dimensions (Units: mm)

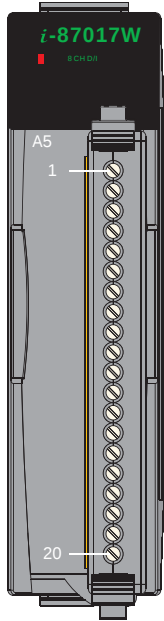


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Wire Connections



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

I-87KW Series

Ordering Information

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

SG-770 CR	7-channel Differential or 14-channel Single-ended Surge Protector (RoHS)
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I-87017W-A5