



# I-8017HW-G

14-bit 100K Sampling Rate 8/16-channel Analog Input Module

## Analog Input

### Features

- 14-bit 100 KHz AD Converter
- Internal or External Trigger



### Introduction

The I-8017HW is a high performance analog input module. Up to 16-channel single-ended or 8-channel differential inputs can be connected to one module. It features 14-bit resolution, 100K/s sampling rates. It provides isolation protection of 2500 V<sub>rms</sub>.

### Applications

- High speed data acquisition system
- Process monitor and control
- Vibration analysis
- Digital pattern generator from digital I/O port

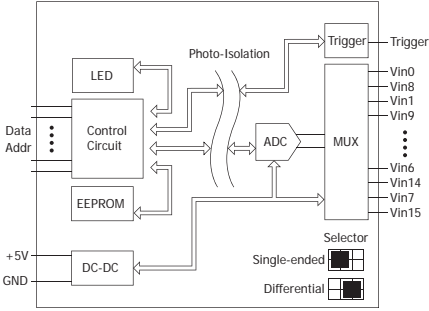
### I/O Specifications

Analog Input		
Input Channels	16-ch Single-ended/8-ch Differential	
Input Range	+/-10V, +/-5V, +/-2.5V, +/-1.25V, -20 mA ~ +20 mA (Requires Optional External 125 Ω Resistor)	
Resolution	14-bit	
Sample Rate	Single Channel Polling Mode	100 k Sample/Sec.
	Single Channel Interrupt Mode	50 k Sample/Sec.
	8-ch Scan Mode	16 k Sample/Sec.
Accuracy	+/-0.1% of FSR	
Input Impedance	20 k, 200 k, 20 M (Jumper Select)	
Input Bandwidth	100 kHz	

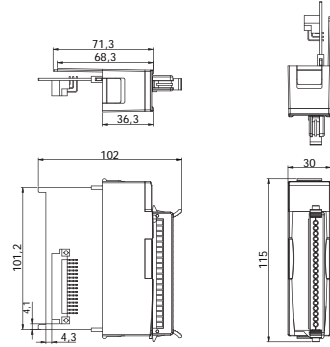
### System Specifications

LED Display	1 LED as power indicator 16 LEDs as analog input indicator
Power	2 W Max.
Environment	
Operating temperature	-25 °C ~ +75 °C
Storage temperature	-30 °C ~ +85 °C
Humidity	5 ~ 95% RH, non-condensing
Dimensions	30 mm x 102 mm x 115 mm (W x L x H)

### Internal I/O Structure



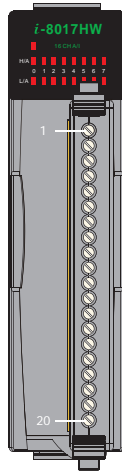
### Dimensions (Unit: mm)



### Wiring

Input Type	Differential	Single-ended
Voltage Input Wiring	mV/V $\frac{V}{V}$ Vin+ Vin-	mV/V $\frac{V}{V}$ Vin AGND
Current Input Wiring	125 $\Omega$ Vin+ Vin-	125 $\Omega$ Vin AGND
Note: When connecting to a current source, an optional external 125 $\Omega$ resistor is required.		

### Pin Assignments



Terminal No.	Pin Assignment	
	Differential	Single-ended
01	Trig	Trig
02	AGND	AGND
03	Vin0+	Vin0
04	Vin0-	Vin8
05	Vin1+	Vin1
06	Vin1-	Vin9
07	Vin2+	Vin2
08	Vin2-	Vin10
09	Vin3+	Vin3
10	Vin3-	Vin11
11	Vin4+	Vin4
12	Vin4-	Vin12
13	Vin5+	Vin5
14	Vin5-	Vin13
15	Vin6+	Vin6
16	Vin6-	Vin14
17	Vin7+	Vin7
18	Vin7-	Vin15
19	AGND	AGND
20	AGND	AGND

< Rev 6.1 >

JP2  
↑  
Differential

JP2  
↑  
Single-ended

### Ordering Information

I-8017HW-G CR	8-channel Analog Input Module (RoHS)
---------------	--------------------------------------

### Related Products

Power Supply	24 V <sub>oc</sub> Power Supply	Application Books	Application Books Designed with Our Products
Relay Module	External Relay Modules for I-7000 DO Module	Data Logger Software	User Friendly Data Logger Software (free)