



## I-9012

200 kS/s, 16-bit 8 channels  
Simultaneously Sampled Analog Input Module

### Features

- 16-bit AD Converter
- Simultaneous Sampling
- 200 kHz sample rate for a single channel
- 8 KB FIFO
- 4 kV ESD Protection
- 2500 VDC Intra-module Isolation
- Wide Operating Temperature Range: -25 to +75 °C



### Introduction

The I-9012 is a high-performance Analog Input module that provides 16-bit resolution and a sampling rate of up to 200 kS/s per channel. The I-9012 provide eight input channels, and the input range is programmable to  $\pm 5$  V or  $\pm 10$  V. The Trigger Output and the Trigger Input Pin cloud allow a multitude of I-9012 modules to be simultaneously sampled. The module also provides 4 kV ESD protection and 2500 VDC intra-module isolation.

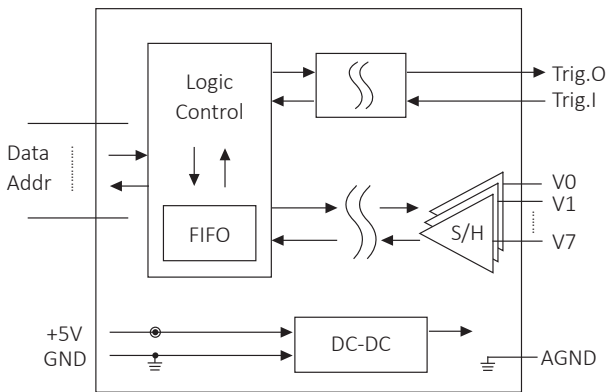
### System Specifications

LED Display	
System LED Indicator	1 LED as Power Indicator
I/O LED Indicator	-
Isolation	
Intra-module Isolation, Field-to-Logic	2500 VDC
EMS Protection	
ESD (IEC 61000-4-2)	$\pm 4$ kV Contact for each Terminal $\pm 8$ kV Air for Random Point
Power	
Power Consumption	1 W Max.
Mechanical	
Dimensions (W x L x H)	31 mm x 134 mm x 144 mm
Environment	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 90% RH, Non-condensing

### I/O Specifications

Analog Input		
Channels	8-ch single-ended	
Input Range	$\pm 5$ V, $\pm 10$ V	
Resolution	16-bit	
Sample Rate	Single Channel Pacer Internal Mode: 200 kS/s Single Channel Pacer External Mode: 200 kS/s Single Channel Polling Mode: 40 kS/s	
FIFO	8 KB	
Accuracy	0.05 % of FSR @ 25 °C	
AD Trigger Mode	Polling	Software Trigger
	Pacer	Internal Clock External Clock
Trigger Output		
Frequency Range	16 Hz to 200 kHz	
Compatibility	5 V/TTL	
Output Type	Pluse	
Pluse Width	100 ns/10 MHz	
Trigger Input		
Frequency Range	1 Hz to 200 KHz	
Trig Edge	Falling Edge	
High Logic	< 5 V	
Low Logic	> 0.8 V	

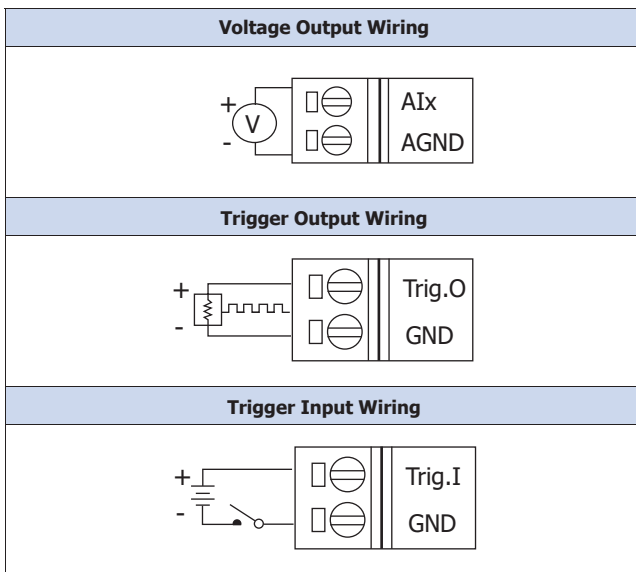
## Internal I/O Structure



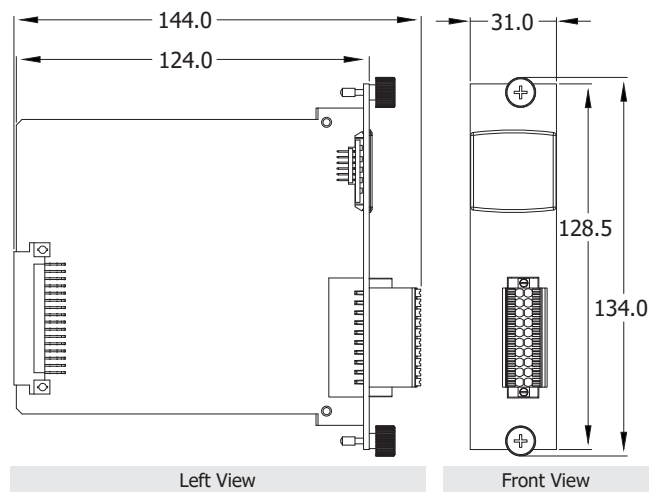
## Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
Trig. O	01	11 GND
Trig. I	02	12 GND
AI0	03	13 AGND
AI1	04	14 AGND
AI2	05	15 AGND
AI3	06	16 AGND
AI4	07	17 AGND
AI5	08	18 AGND
AI6	09	19 AGND
AI7	10	20 AGND

## Wire Connections



## Dimensions (Units: mm)



## Ordering Information

<b>I-9012 CR</b>	200 kS/s, 16-bit 8 channels Simultaneously Sampled Analog Input Module (RoHS)
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