

## Introduction

The I-9017 is a high performance Analog Input module with 14 bits of resolution and a sampling rate of up to 90 kS/s. The I-9017 provides up to 16 single-ended or 8 differential input channels, which is selectable via a jumper setting. The I-9017 has qualification for 4 kV ESD protection as well as 2500 Vrms intra-module isolation.

## Applications

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

## System Specifications

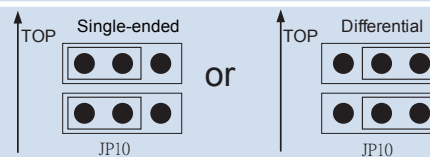
Model	I-9017
<b>LED Indicators/Display</b>	
System LED Indicator	1 LED as Power Indicator
I/O LED Indicator	16 LED as Status Indicator
<b>Isolation</b>	
Intra-module Isolation, Field-to-Logic	2500 Vrms
<b>EMS Protection</b>	
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal ±8 kV Air for Random Point
<b>Power</b>	
Power Consumption	2 W Max.
<b>Mechanical</b>	
Dimensions (L × W × H)	144 mm × 30.3 mm × 134 mm
<b>Environment</b>	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-40 ~ +85°C
Humidity	10 ~ 90% RH, Non-condensing

## Features

### I-9017

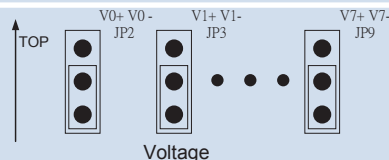
- 16 Single-ended/8 Differential Input Channels

Jumper Selectable (JP10)



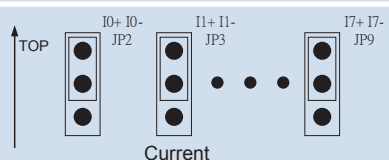
- Input Voltage Range : ±1.25 V, ±2.5 V, ±5 V, ±10 V

Jumper Selectable (JP2~JP9)



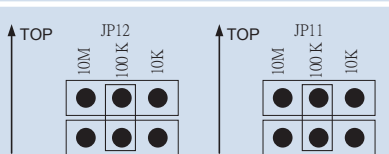
- Input Current Range : 0 mA ~ ±20 mA

Jumper Selectable (JP2~JP9)



- Input Impedance 20 K, 200 K, 20 M

Jumper Selectable (JP12 JP11)



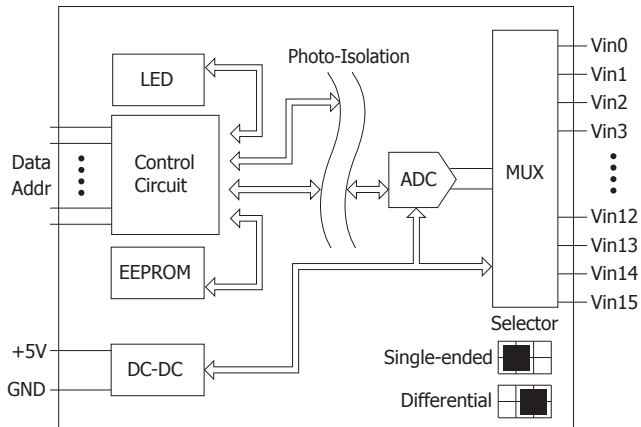
- 14-bit 100 KHz AD Converter
- A/D Trigger Mode: Polling, Interrupt
- 4 kV ESD Protection
- Wide Operating Temperature Range: -25 to +75°C



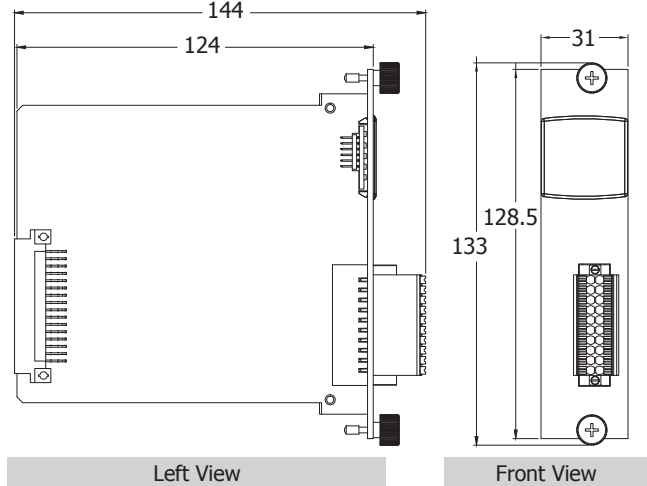
## I/O Specifications

Model	I-9017
<b>Analog Input</b>	
Channels	16-ch Single-ended/8-ch Differential
Voltage Input Range	±1.25, ±2.5, 5 V, ±10 V
Current Input Range	-20 mA ~ +20 mA
Resolution	14-bit
Accuracy	±0.1% of FSR
Sample Rate	Single Channel Polling Mode : 90 kS/s Single Channel Interrupt Mode: 50 kS/s 16-channel Scan Mode : 16 kS/s
Input Bandwidth	100 KHz
Zero Drift	± 0.1 uV/°C
Span Drift	± 10 ppm/°C
Input Impedance	20 K, 200 K, 20 M (Jumper Selectable)

## Internal I/O Structure



## Dimensions (Units: mm)



## Wire Connections

Input Wiring	Differential	
Voltage Input Wiring		
Current Input Wiring		
Input Wiring	Single-ended	
Voltage Input Wiring		
Current Input Wiring		

Note :

Differential Input Type : Current Input Wiring need to jumper at Current Input.

Single-ended Input Type : Current Input Wiring need to jumper at Voltage Input , an options external 125 Ohm resistor is required.

## Pin Assignments

Pin Assignment		Terminal No.	Pin Assignment	
Differential	Single-ended		Differential	Single-ended
Trig+	Trig+	1	Trig-	Trig-
V0+(I0+)	Vin0	2	V0-(I0-)	Vin8
V1+(I1+)	Vin1	3	V1-(I1-)	Vin9
V2+(I2+)	Vin2	4	V2-(I2-)	Vin10
V3+(I3+)	Vin3	5	V3-(I3-)	Vin11
V4+(I4+)	Vin4	6	V4-(I4-)	Vin12
V5+(I5+)	Vin5	7	V5-(I5-)	Vin13
V6+(I6+)	Vin6	8	V6-(I6-)	Vin14
V7+(I7+)	Vin7	9	V7-(I7-)	Vin15
AGND	AGND	10	AGND	AGND

## Ordering Information

I-9017 CR

14-bit, 90 K sampling rate, 16/8-channel analog input module (RoHS)