



**M-2217CI-4      M-2217CI**

4/8-ch Channel to Channel Isolation  
Differential Analog Input Module

### Features

- Software Configurable Voltage/Current Input
- Adjustable Sampling Rate (200Hz/10Hz per channel)
- Records with Time Stamps for Voltage and Current Measurements
  - M-2217CI-4: 480,000 records/each channel
  - M-2217CI: 320,000 records/each channel
- Built-in I/O
  - M-2217CI-4: 4-ch AI (Differential)
  - M-2217CI: 8-ch AI (Differential)
- 3000 VDC Channel-to-channel Isolation



### Introduction

M-2217CI-4/M-2217CI is a 4/8-channel analog input module with channel-to-channel isolation. All analog input channels can be individually configured with input ranges including  $\pm 1$  V,  $\pm 2.5$  V,  $\pm 5$  V,  $\pm 10$  V, 0-20 mA, 4-20 mA, and  $\pm 20$  mA. The module can be set as voltage or current inputs via the software and provides up to 120 VDC overvoltage protection, as well as 50 mA overcurrent protection at 110 VDC/VAC. Additionally, each 4-20 mA input channel features open wire detection.

The sampling rate of M-2217CI-4/M-2217CI can be set to either fast mode (200 Hz) or normal mode (10 Hz) for recording voltage and current values with timestamps. It also provides EMS (EFT/ESD/Surge) protection and 3000 VDC I/O isolation to enhance noise protection capabilities in industrial environments.

### System Specifications

Module	M-2217CI-4	M-2217CI
<b>CPU Module</b>		
CPU	32-bit ARM	
Watchdog Timer	Module, Communication (Programmable)	
<b>Isolation</b>		
Intra-module Isolation	3750 VDC	
<b>EMS Protection</b>		
EFT (IEC 61000-4-4)	$\pm 4$ kV for Power Line	
ESD (IEC 61000-4-2)	$\pm 4$ kV Contact for each Terminal $\pm 8$ kV Air for Random Point	
Surge (IEC 61000-4-5)	$\pm 2$ kV for Power Line	
<b>LED Indicators</b>		
Status	1 x Power and Communication	
<b>COM Ports</b>		
Ports	1 x RS-485	
Baud Rate	1200 ~ 115200 bps	
Data Format	(N, 8, 1) (N, 8, 2) (E, 8, 1) (O, 8, 1)	
Protocol	Modbus RTU, DCON	
Bias Resistor	10 k $\Omega$	
<b>Power</b>		
Reverse Polarity Protection	Yes	
Input Range	$+10 \sim +48$ VDC	
Consumption	2.8 W (Max.)	4.8 W (Max.)
<b>Mechanical</b>		
Dimensions (mm)	33 x 184 x 129 (W x L x H)	
Installation	DIN-Rail mounting Wall mounting (Optional ASO-0015)	

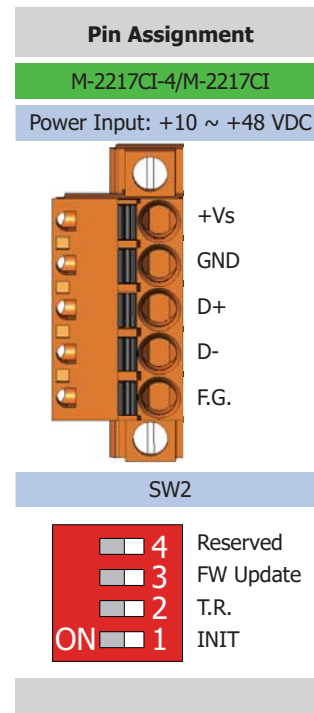
Module	M-2217CI-4	M-2217CI
<b>Environment</b>		
Operating Temperature	$-25 \sim +75$ °C	
Storage Temperature	$-30 \sim +80$ °C	
Humidity	10 ~ 90% RH, Non-condensing	

### I/O Specifications

Module	M-2217CI	M-2217CI
<b>Analog Input</b>		
Channels	4 Differential	8 Differential
Type	Voltage, Current (Software Configurable)	
Range	Voltage	$\pm 1$ V, $\pm 2.5$ V, $\pm 5$ V, $\pm 10$ V
	Current	0 ~ 20 mA, 4 ~ 20 mA, $\pm 20$ mA
Resolution	16-bit	
Accuracy	$\pm 0.1\%$ of FSR	
Sampling Rate	Normal Mode	10 Hz (Total)
	Fast Mode	200 Hz (Total)
Input Impedance	Voltage: 20 M $\Omega$ , Current: 135 $\Omega$	
Overvoltage Protection	120 VDC	
Overcurrent Protection	50 mA at 110 VDC (max.)	
Individual Channel Configuration	Yes	
Channel-to-Channel Isolation	3000 VDC	
Open Wire Detection	For 4 ~ 20 mA only	

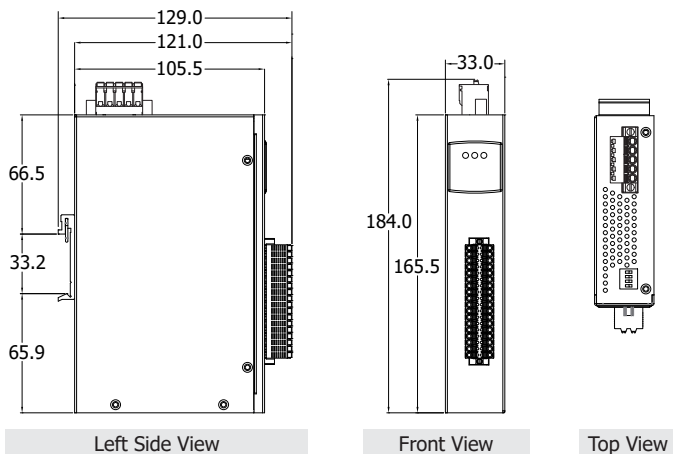
## Pin Assignments

Pin Assignment		Terminal No.	Pin Assignment		
M-2217CI-4	M-2217CI		M-2217CI-4	M-2217CI	
AI0-	AI0-	02	01	AI0+	AI0+
		04	03		
	AI1-	06	05		AI1+
		08	07		
AI1-	AI2-	10	09	AI1+	AI2+
		12	11		
	AI3-	14	13		AI3+
		16	15		
AI2-	AI4-	18	17	AI2+	AI4+
		20	19		
		22	21		
	AI5-	24	23		AI5+
		26	25		
		28	27		
AI3-	AI6-	30	29	AI3+	AI6+
		32	31		
		34	33		
	AI7-	36	35		AI7+



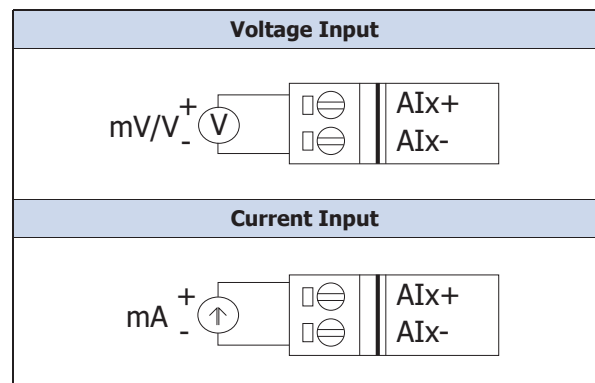
## Dimensions (Units: mm)

M-2217CI-4/M-2217CI



## Wire Connections

M-2217CI-4/M-2217CI



## Ordering Information

<b>M-2217CI-4 CR</b>	4-ch Channel to Channel Isolation Differential Analog Input Module using the DCON and Modbus Protocols (RoHS)
<b>M-2217CI CR</b>	8-ch Channel to Channel Isolation Differential Analog Input Module using the DCON and Modbus Protocols (RoHS)