

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 (200 Hz/ 10 Hz per channel)
- Time-stamped Voltage and Current Measurement Records
  - 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 ±1 V, ±2.5 V, ±5 V, ±10 V, 0-20 mA, 4-20 mA, and ±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
CPU Module		
CPU	32-bit ARM	
Watchdog Timer	Module, Communication (Programmable)	
Isolation		
Intra-module Isolation	3750 VDC	
EMS Protection		
EFT (IEC 61000-4-4)	±4 kV for Power Line	
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal ±8 kV Air for Random Point	
Surge (IEC 61000-4-5)	±2 kV for Power Line	
LED Indicators		
Status	1 x Power and Communication	
COM Ports		
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 kΩ	
Power		
Reverse Polarity Protection	Yes	
Input Range	+10 ~ +48 VDC	
Consumption	2.8 W (Max.)	4.8 W (Max.)
Mechanical		
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
Environment		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-30 ~ +80 °C	
Humidity	10 ~ 90% RH, Non-condensing	

I/O Specifications

Module		M-2217CI-4	M-2217CI
Analog Input			
Channels		4 Differential	8 Differential
Type		Voltage, Current (Software Configurable)	
Range	Voltage	±1 V, ±2.5 V, ±5 V, ±10 V	
	Current	0 ~20 mA, 4 ~ 20 mA, ±20 mA	
Resolution		16-bit	
Accuracy		±0.1% of FSR	
Sampling Rate	Normal Mode	10 Hz (Total)	
	Fast Mode	200 Hz (Total)	
Input Impedance		Voltage: 20 MΩ, Current: 135 Ω	
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	

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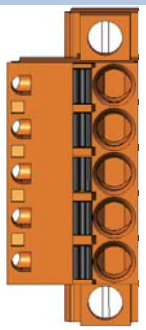
Pin Assignments

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+

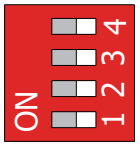
Pin Assignment

M-2217CI-4/M-2217CI

Power Input: +10 ~ +48 VDC

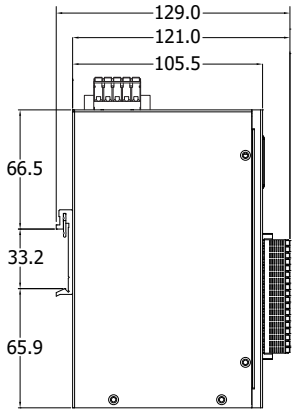


SW2

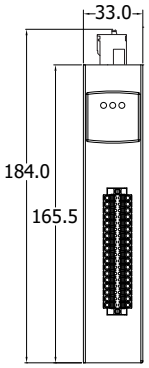


Dimensions (Units: mm)

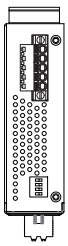
M-2217CI-4/M-2217CI



Left Side View



Front View

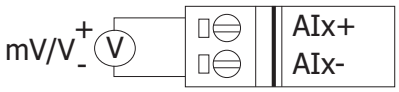


Top View

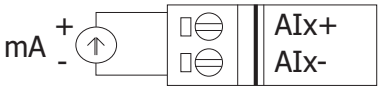
Wire Connections

M-2217CI-4/M-2217CI

Voltage Input



Current Input



Ordering Information

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

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