



ET-2217CI-4

ET-2217CI

Ethernet I/O Module 4/8-channel Analog Inputs

Features

- Able to Record Voltage and Current Measurements with Time Stamps
- 3000 VDC Channel-to-Channel Isolation
- Max. Recording for each channel
 - ET-2217CI-4: 480,000
 - ET-2217CI: 320,000
- Built-in Web Server and I/O Pair Connection (Push and Pull)
- 120 VDC Overvoltage Protection
- Software Configurable Voltage/Current input
- Adjustable Sampling Rate (200Hz/10Hz per channel)
- Support Modbus TCP/UDP and MQTT Protocols
- 2-port Ethernet Switch (LAN Bypass) for Daisy-Chain Wiring



Introduction

The ET-2217CI is a channel-to-channel isolated analog input module that includes 8 analog input channels. The module provides a programmable input range on all Analog Input channels (± 1 V, ± 2.5 V, ± 5 V, ± 10 V, 0 to 20mA, 4 to 20mA and ± 20 mA). Each analog input channel can be configured for an individual input range, providing a high overvoltage protection of 120 Vdc and 50mA overcurrent protection at 110 VDC/VAC. Voltage and current input is software configurable. The sampling rate of the ET-2217CI is adjustable and can be set to either fast (200Hz) or normal (10Hz) mode. It can be used to record voltage and current information, including the date and time stamps. Support is provided for common industrial protocols such as Modbus TCP, as well as the emerging machine-to-machine (M2M)/IoT (Internet of Things) connectivity protocol – MQTT. The module also features per-channel open wire detection for 4 ~ 20 mA input and provides 4 KV ESD/EFT protection, 2 KV Surge protection, and 3000 VDC intra-module isolation and channel-to-channel isolation. The ET-2217CI-4 has the same specifications as ET-2217CI, but provides 4-channel analog inputs.

System Specifications

Model	ET-2217CI-4	ET-2217CI
System		
CPU	32-bit ARM	
Real Time Clock	Yes	
Data Logger	Yes, up to 480,000 records (ET-2217CI-4) and 320,000 records (ET-2217CI)	
Communication		
Ethernet Port	2 x RJ-45, 10/100 Base-TX, Switch Ports	
Protocol	Modbus TCP, Modbus UDP, and MQTT	
Security	Password and IP Filter	
Dual Watchdog	Yes, Module, Communication (Programmable)	
LAN Bypass	Yes	
LED Indicators		
for System Running	Yes, 1 as Power/Communication Indicator	
for Ethernet Link/Act	Yes	
2-Way Isolation		
Ethernet	1500 VDC	
I/O	3000 VDC, Field-to-Logic 3000 VDC, Channel to Channel	
EMS Protection		
ESD (IEC 61000-4-2)	± 4 kV Contact for Each Terminal	
	± 8 kV Air for Random Point	
EFT (IEC 61000-4-4)	± 4 kV for Power Line	
Surge (IEC 61000-4-5)	± 2 kV for Power Line	
Power		
Reverse Polarity Protection	Yes	
Powered from Terminal Block	$+10 \sim +48$ VDC	
Consumption	5.4 W (Max.)	

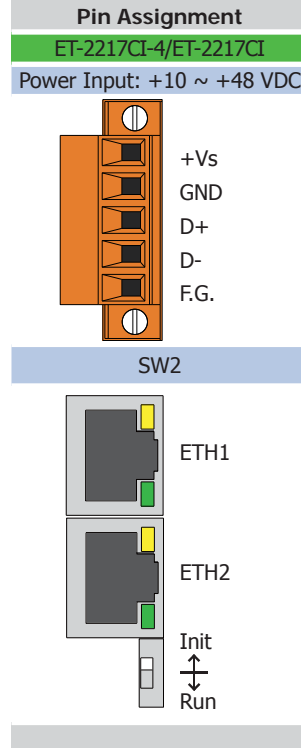
Model	ET-2217CI-4	ET-2217CI
Mechanical		
Dimensions (mm)	33 x 176 x 130 (W x L x H)	
Installation	DIN-Rail Mounting	
Casing	Metal	
Ingress Protection Rating	IP30	
Environment		
Operating Temperature	$-25 \sim +75^\circ\text{C}$	
Storage Temperature	$-30 \sim +80^\circ\text{C}$	
Humidity	10 ~ 90% RH, Non-condensing	

I/O Specifications

Model	ET-2217CI-4	ET-2217CI
Analog Input		
Channels	4 Differential	8 Differential
Type Range	Voltage	± 1 V, ± 2.5 V, ± 5 V, ± 10 V
	Current	0 ~ 20mA, 4 ~ 20mA (Software Configurable)
Resolution	16-bit	
Accuracy	Normal Mode	$\pm 0.1\%$ of FSR
	Fast Mode	$\pm 0.5\%$ of FSR
Sampling Rate	Normal Mode	10 Hz (per channel)
	Fast Mode	200 Hz (per channel)
Input Impedance	Voltage: 20 M Ω , Current: 135 Ω	
Overvoltage Protection	120 VDC	
Overcurrent Protection	Yes, 50 mA at 110 VDC	
Individual Channel Configuration	Yes	

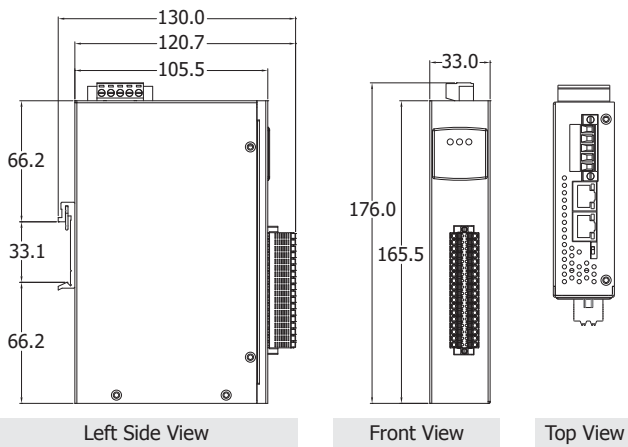
Pin Assignments

Pin Assignment		Terminal No.	Pin Assignment		
ET-2217CI	ET-2217CI-4		ET-2217CI	ET-2217CI-4	
AI0-	AI0-	02	01	A00+	AI0+
		04	03		
AI1-		06	05	AI1+	
		08	07		
AI2-	AI1-	10	09	AI2+	AI1+
		12	11		
AI3-		14	13	AI3+	
		16	15		
AI4-	AI2-	18	17	AI4+	AI2+
		20	19		
		22	21		
AI5-		24	23	AI5+	
		26	25		
		28	27		
AO6-	AI3-	30	29	AI6+	AI3+
		32	34		
		34	33		
AI7-		36	35	AI7+	



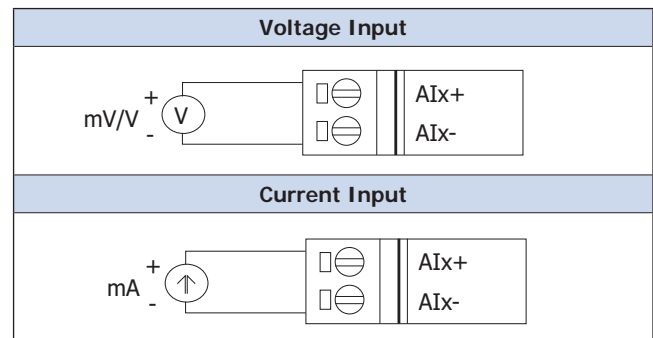
Dimensions (Units: mm)

ET-2217CI-4/ET-2217CI



Wire Connections

ET-2217CI-4/ET-2217CI



Ordering Information

ET-2217CI-4 CR	Ethernet I/O Module with 2-port Ethernet Switch, 4-channel Analog Inputs with Channel-to-Channel Isolation (RoHS)
ET-2217CI CR	Ethernet I/O Module with 2-port Ethernet Switch, 8-channel Analog Inputs with Channel-to-Channel Isolation (RoHS)

Related Products

	NS-205 CR	Unmanaged 5-Port Industrial Ethernet Switch with Power Input +10 ~ +30 Vdc (RoHS)
	NS-208 CR	Unmanaged 8-port Industrial 10/100 Base-TX Ethernet Switch with Power Input +10 ~ +30 Vdc (RoHS)
	DIN-KA52F CR	24 V/1.04 A, 25 W Power Supply with DIN-Rail Mounting (RoHS)
	GPSU06U-6	24 V/0.25 A (max.) Power Supply