ICP Electronics
Australia Pty Ltd
TEL: 02 9457 6011
sales@icp-australia.com.au
www.icp-australia.com.au
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ET-2217 PET-2217

(PoE) Ethernet I/O Module with 8/16-ch Analog Inputs

Features

- Built-in Web Server
- Support Modbus TCP/UDP, MQTT, and SNMP V2c Protocols
- 2-port Ethernet Switch (LAN Bypass) for Daisy-Chain Wiring
- Dual Watchdog
- I/O Pair Connection (Push and Pull)
- Built-in I/O
  - 8 Differential or 16 Single-ended Analog Inputs

Introduction

The ET-2217/PET-2217 is a module with 8-channel differential or 16 single-ended analog input module. The module provides a programmable input range on all Analog Input channels (±150 mV, ±500 mV, ±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 DIP switch selectable. The sampling rate of the ET-2217/PET-2217 is adjustable and can be set to either fast (200Hz) or normal (20Hz) mode. It can be used to record voltage and current information. 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.

System Specifications

Model	ET-2217	PET-2217
Software		
Built-in Web Server	Yes	
CPU Module		
CPU	32-bit ARM	
Watchdog Timer	Module, Communication (Programmable)	
Isolation		
2-way Isolation	Ethernet: 1500 VDC, I/O: 3000 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	Run, Ethernet	Run, Ethernet, PoE
Ethernet		
Ports	2 x RJ-45, 10/100 Base-Tx, Switch Ports	
PoE	-	Yes
LAN bypass	Yes	
Security	Password and IP Filter	
Protocol	Modbus TCP, Modbus UDP, MQTT, and SNMP V2c	
Power		
Reverse Polarity Protection	Yes	
Consumption	3.3 W (max.)	3.5 W (max.)
Powered from PoE	-	IEEE 802.3af, Class1
Powered from Terminal Block	+10 to +48 VDC	
Mechanical		
Casing	Metal	
Dimensions (mm)	33 x 127 x 117 (W x L x H)	
Installation	DIN-Rail mounting / Wall mounting (Optional ASO-0015)	
Environment		
Operating Temperature	-25 to +75°C	
Storage Temperature	-40 to +80°C	
Humidity	10 to 90% RH, Non-condensing	

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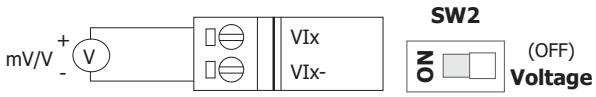
I/O Specifications

Model		ET-2217	PET-2217
Analog Input			
Channels		8 Differential or 16 Single-ended	
Type		Voltage, Current (DIP switch selectable - see Note 1)	
Range	Voltage	±150 mV, ±500 mV, ±1 V, ±2.5 V, ±5 V, ±10 V	
	Current	±20 mA, 0 ~ +20 mA, +4 ~ +20 mA	
Resolution		16-bit	
Accuracy	Normal Mode	±0.1% of FSR	
	Fast Mode	±0.5% of FSR	
Sampling Rate	Normal Mode	20 Hz (total channels)	
	Fast Mode	200 Hz (total channels)	
Input Impedancet	Voltage	2 MΩ (Differential), 1 MΩ (Single-ended)	
	Current	137 Ω (Differential)	
Common Voltage Protection		±200 VDC	
Overvoltage Protection		120 VDC	
Individual Channel Configuration		Yes	
Open Wire Detection		For 4 to 20 mA only	

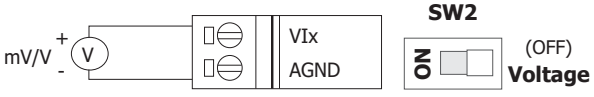
Note 1: Differential wiring can be used for both voltage input and current input. Single-ended wiring can only be used for voltage input.

Wire Connections

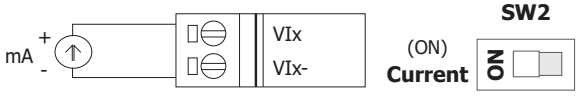
Voltage Input (Differential Mode)



Voltage Input (Single-ended Mode)



Current Input (Differential Mode)

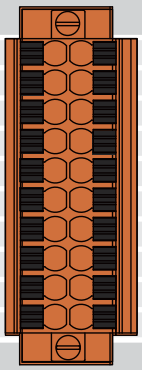


Pin Assignments

Port	Pin Assignment
SW1	Init / Run
PWR	F.G.
	GND
	+ Vs
ETH1	
ETH2	

Pin Assignment	SW2	Pin Assignment
I0		V0
I1		V1
I2		V2
I3		V3
I4		V4
I5		V5
I6		V6
I7		V7

Pin Assignment	Terminal No.		Pin Assignment
VI0	01	02	VI0-/VI8
VI1	03	04	VI1-/VI9
VI2	05	06	VI2-/VI10
VI3	07	08	VI3-/VI11
VI4	09	10	VI4-/VI12
VI5	11	12	VI5-/VI13
VI6	13	14	VI6-/VI14
VI7	15	16	VI7-/VI15
AGND	17	18	AGND
AGND	19	20	AGND



20-pin Connector

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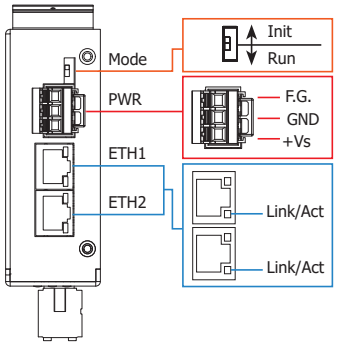
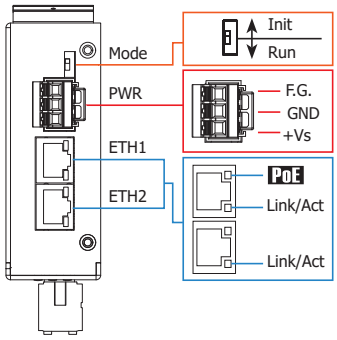
Appearance

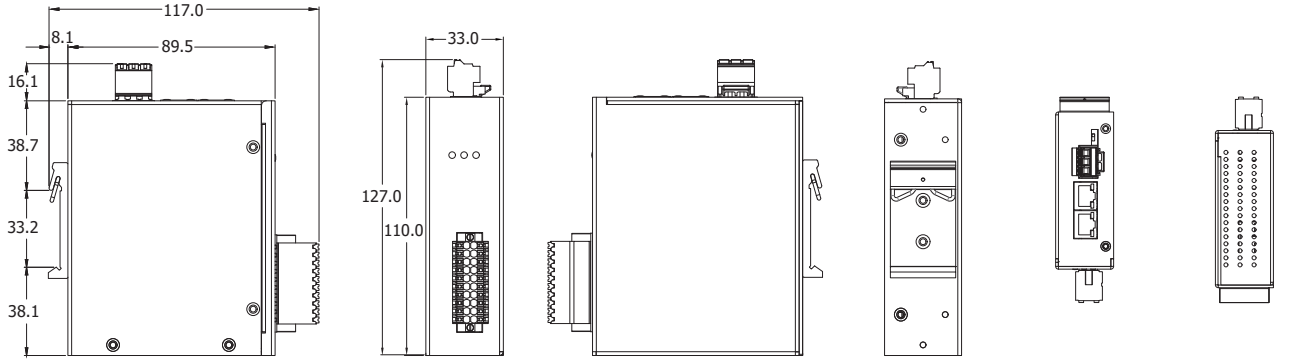
ET-2217 ▼



PET-2217 ▼



Dimensions (Units: mm)

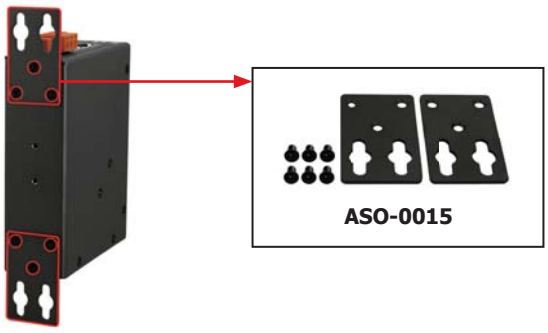


Ordering Information

ET-2217 CR	Ethernet I/O Module with 2-port Ethernet Switch, 8/16-ch Analog Input (RoHS)
PET-2217 CR	PoE Ethernet I/O Module with 2-port Ethernet Switch, 8/16-ch Analog Input (RoHS)

Accessories

ASO-0015 CR	Wall Mount Kit (W: 28 mm) (RoHS)



(P)ET-2000+ASO-0015