



**tET-AD2**

**tPET-AD2**

Tiny Ethernet Module with Isolated 2-ch AI

## Features

- Web Server for Configuration
- Support Modbus TCP/UDP, MQTT, and SNMP V2c Protocols
- I/O Pair Connection (Push and Pull)
- Supports Dual-watchdog
- Supports Firmware Update via Ethernet
- Built-in I/O
  - 2-channel Single-ended Inputs
  - Voltage Inputs and Current Inputs
- Adjustable Sampling Rate (Fast/Normal Mode)



## Introduction

The tET-AD2 / tPET-AD2 is an analog input module that includes 2 single-ended analog input channels and provides a programmable input range on all analog inputs (0 ~ 500 mV, 0 ~ 1 V, 0 ~ 2.5 V, 0 ~ 5 V, 0 ~ 10 V, 0 ~ 20 mA, 4 ~ 20 mA). It provides high overvoltage protection of 120 VDC. The sampling rate of the tET-AD2 / tPET-AD2 is adjustable and is available in either fast or normal mode. It also provides 4 kV ESD protection as well as 3000 VDC intra-module isolation.

## System Specifications

Model	tET-AD2	tPET-AD2
<b>Software</b>		
Built-in Web Server	Yes	
<b>CPU Module</b>		
CPU	32-bit MCU	
Watchdog Timer	Module, Communication (Programmable)	
<b>Isolation</b>		
2-way Isolation	Ethernet	1500 VDC
	I/O	3000 VDC
<b>EMS Protection</b>		
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	
<b>LED Indicators</b>		
Status	Run, Ethernet	Run, Ethernet, PoE
<b>Ethernet</b>		
Ports	1 x RJ-45, 10/100 Base-TX	
PoE	-	Yes
Access Control	Password and IP Filter	
Protocol	Modbus TCP, Modbus UDP, MQTT, SNMP V2c	
<b>Power</b>		
Reverse Polarity Protection	Yes	
Consumption	1.0 W	1.2 W
Powered from PoE	-	IEEE 802.3af, Class 1
Powered from Terminal Block	+12 to +48 VDC	

## I/O Specifications

Model	tET-AD2	tPET-AD2
<b>Analog Input</b>		
Channels	2 Single-ended	
Range	Voltage	0 ~ 500 mV, 0 ~ 1 V, 0 ~ 2.5 V, 0 ~ 5 V, 0 ~ 10 V
	Current	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	10 Hz (total channels)
	Fast Mode	200 Hz (total channels)
Input Impedance	Voltage	6 MΩ
	Current	124 Ω
Overvoltage Protection	120 VDC	
Overcurrent Protection	50 mA at 110 VDC	
Individual Channel Configuration	Yes	
Open Wire Detection	For 4 to 20 mA only	

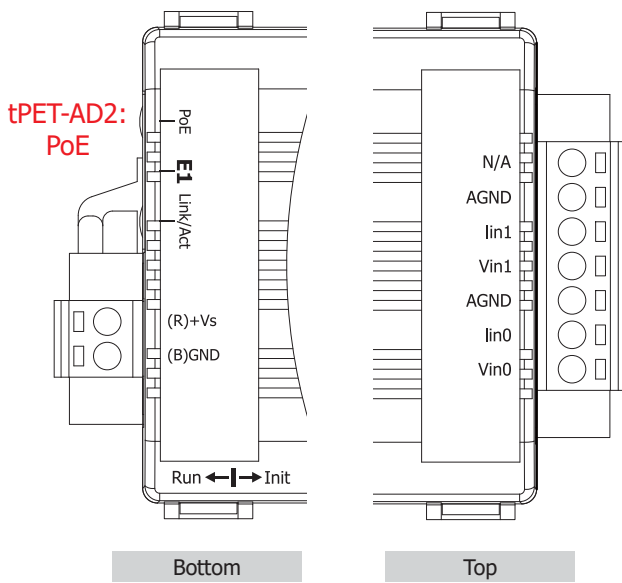
## Mechanical

Dimensions (mm)	52 x 96 x 27 (W x L x H)
Installation	DIN-Rail mounting

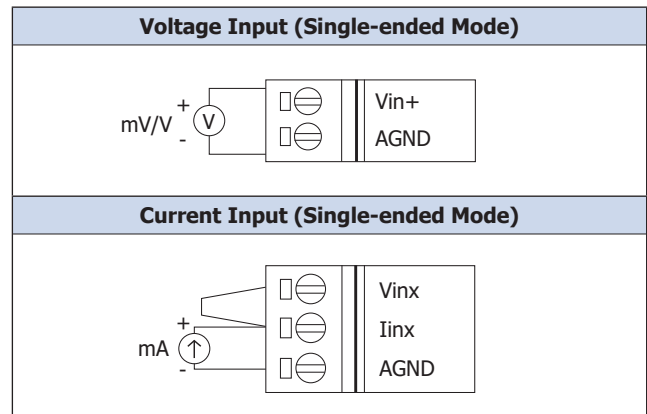
## Environment

Operating Temperature	-25 ~ +75 °C
Storage Temperature	-30 ~ +80 °C
Humidity	10 ~ 90% RH, Non-condensing

## Pin Assignments



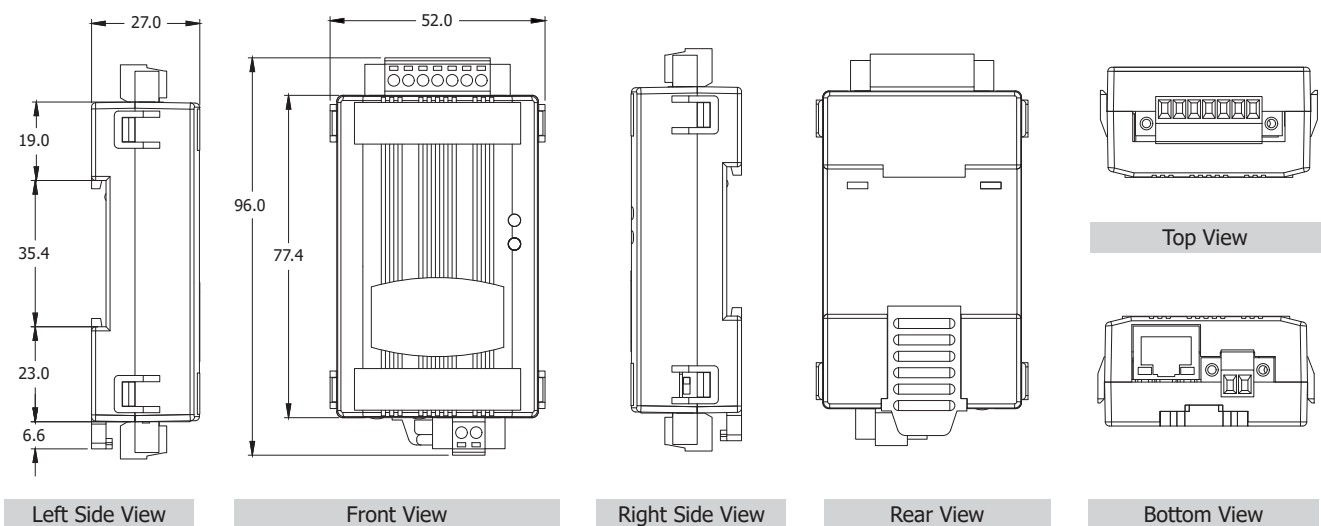
## Wire Connections



## Applications

- Industrial Automation
- Industrial Machinery
- Building Automation
- Food and Beverage Systems
- Semiconductor fabrication
- Control Systems

## Dimensions (Units: mm)



## Ordering Information

<b>tET-AD2 CR</b>	Tiny Ethernet Module with Isolated 2-ch AI (RoHS)
<b>tPET-AD2 CR</b>	Tiny PoE Ethernet Module with Isolated 2-ch AI (RoHS)