



ETS-7226

Ethernet I/O Module with 6-ch AI, 2-ch AO,
2-ch DI, 2-ch DO

Features

- Support for HTTP/HTTPS Web Server
- Enhanced DoS Protection
- Support for Modbus/TCP Security
- Support for OPC UA、MQTT with TLS
- Support for 802.1Q VLAN
- 2-port Ethernet Switch for Daisy-Chain Topology
- Dual Watchdog with Power-on and Safe Value
- I/O Pair Connection
- Built-in I/O
 - AI: 6 Channels
 - AO: 2 Channels
 - DI/Counter: 2 Channels
 - DO: 2 Channels
- Fast Boot (< 5 Second)



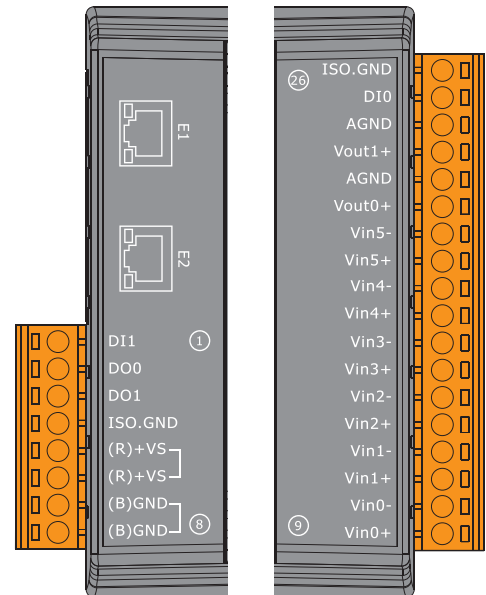
Introduction

The ETS-7226 has 6 analog inputs, 2 analog outputs, 2 digital inputs and 2 digital outputs and supports the OPC UA, MQTT, RESTful API, CoAP, LwM2M and Modbus protocols. The module supports the TLS to secure such as web traffic (HTTPS), emails, messaging, OPC UA and MQTT. Each analog input is allowed to configure a proper range with 240 Vrms high voltage protection. Each analog input/output can be programmed to accept current or voltage as input/output depending upon the position of corresponding jumper.

System Specifications

Model	ETS-7226
Software	
Function	Web Interface for Configuration IF-THEN-ELSE Logic operation I/O channel monitoring and control Timer operation / Schedule operation Internal Register operation / Email sending function
CPU Module	
Watchdog Timer	Module, Communication (Programmable)
2-way Isolation	
Ethernet	1500 VDC
I/O	2500 VDC
EMS Protection	
EFT (IEC 61000-4-4)	±2 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, I/O
Ethernet	
Ports	2 x RJ-45, 10/100 Base-TX, Switch Ports
LAN bypass	Yes
Access Control	ID, Password and IP Filter
Protocol	Modbus TCP, Modbus TCP/TLS, Modbus UDP, OPC UA, MQTT, Rest API, CoAP, LwM2M, SNMP, SMTP, SNT, HTTP/HTTPS
Power	
Reverse Polarity Protection	Yes
Consumption	5.0 W (max.)
Powered from Terminal Block	+12 ~ +48 VDC

Pin Assignments



Mechanical

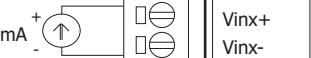
Dimensions (mm)	76 x 120 x 38 (W x L x H)
Installation	DIN-Rail mounting
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 to 90% RH, Non-condensing

I/O Specifications

Analog Input		
Channels		2
Type		Dry Contact, Wet Contact
ON Voltage Level	Dry	Close to GND
	Wet	+1 VDC (max.)
OFF Voltage Level	Dry	Open
	Wet	+3.5 ~ +30 VDC
Max. Counts		4,294,967,295 (32-bit)
Frequency		100 Hz
Min. Pulse Width		5 ms
Effective Distance		500m (max.)
Overvoltage Protection		+30 VDC
Digital Output		
Channels		2
Type		Isolated Open Collector
Sink/Source (NPN/PNP)		Sink
Load Voltage		+5 ~ +50 VDC
Max. Load Current		700 mA/channel
Overvoltage Protection		+60 VDC
Overload Protection		1.4 A
Short-circuit Protection		Yes
Power on Value		Programmable
Safe Value		Programmable

Analog Input	
Channels	6 (Differential)
Type	Voltage, Current
Range	±500 mV, ±1 V, ±5 V, ±10 V 0 ~ 20 mA, ±20 mA, 4 ~ 20 mA (Jumper Selectable)
Resolution	16-bit
Accuracy	Normal Mode : ±0.1%
	Fast Mode : ±0.5% or better
Sampling Rate	Normal Mode : 10 Hz (total channels)
	Fast Mode : 50 Hz (total channels)
Input Impedance	Voltage : 2 MΩ
	Current : 125 Ω
Common Voltage Protection	±200 VDC
Overvoltage Protection	240 Vrms
Overcurrent Protection	50 mA @ 110 VDC (max.)
Individual Channel Configuration	Yes
Open Wire Detection	For 4 to 20 mA only
Virtual Channel to Channel Isolation	±400 VDC
Analog Output	
Channels	2
Type	Voltage, Current
Range	+0 ~ +5 VDC, ±5 VDC, +0 ~ +10 VDC, ±10 VDC, 0 ~ 20 mA, 4 ~ 20 mA (Jumper Selectable)
Resolution	12-bit
Accuracy	±0.1% FSR
Open Wire Detection	For 4 to 20 mA only
Voltage Output Capability	10 V @ 20 mA
Current Load Resistance	500 Ω
Individual Channel Configuration	Yes
Power on Value	Programmable
Safe Value	Programmable

Wire Connections

Analog Input		
Voltage Input (Default)		
	Vin+ Vin-	J1 ~ J6
Current Input		
	Vin+ Vin-	J1 ~ J6
Analog Output		
Voltage Output (Default)		
	Old Version	PCB V1.20 and later
		
Current Output		
	Old Version	PCB V1.20 and later
		

Digital Input/Counter	ON State Readback as 1	OFF State Readback as 0
Dry Contact		
Wet Contact		
Digital Output	ON State Readback as 1	OFF State Readback as 0
Open Collector (Sink)		

Ordering Information

ETS-7226 CR	Ethernet I/O Module with 2-port Ethernet Switch, 6-ch AI, 2-ch AO, 2-ch DI and 2-ch DO (RoHS)
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