

ETS-7226

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

Features

- Support for HTTP/HTTPS Web Server
- Enhanced DoS Protection
- Support for Modbus/TCP Security
- Support for MQTT (optional TLS)
- Support for 802.1Q and 802.1p Priority Tagging
- 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 is a multi-function module with 6-channel analog inputs, 2-channel analog outputs, 2-channel digital inputs and 2-channel digital outputs, as well as the MQTT, Rest API, CoAP, LwM2M and Modbus protocols, which are supported for connecting with a variety of digital sensors in Industrial Internet of Things (IIoT) applications. It provides various programmable analog inputs (+/-500 mV, +/-1 V, +/-5 V, +/-10 V, +/-20 mA, 0 ~ 20 mA and 4 ~ 20 mA), and analog outputs (+/-5 V, +/-10 V, 0 ~ 20 mA and 4 ~ 20 mA). 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.

ETS-7226 provides an easy-to-use and intuitive web interface that allows users to implement IF-THEN-ELSE control logic with just a few clicks; no programming is required. The built-in IF-THEN-ELSE logic engine executes the automation logic in a stable and efficient manner. It also provides functions for mathematical operations.

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
CPU Module	
Watchdog Timer	Module, Communication (Programmable)
Isolation	
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
Powered from PoE	Yes, IEEE 802.3af, Class 2

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Specifications

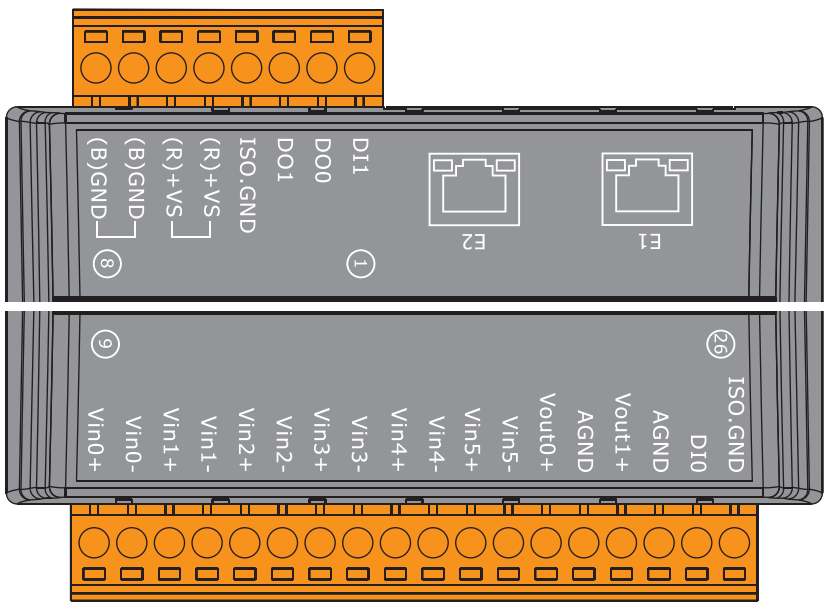
Model	ETS-7226
Analog Input	
Channels	6 (Differential)
Type	Voltage Current
Range	±500 mV, ±1 V, ±5 V, ±10 V 0 to 20 mA, ±20 mA, 4 to 20 mA (Jumper Selectable)
Resolution	16-bit
Accuracy	Normal Mode: ±0.1% Fast Mode: ±0.5% or better
Sampling Rate	Normal Mode: 10 Hz (total channels) Fast Mode: 50 Hz (total channels)
Input Impedance	Voltage: 2 MΩ Current: 125 Ω
Common Voltage Protection	±200 VDC
Overvoltage Protection	240 Vrms
Overcurrent Protection	50 mA at 110 VDC (max.)
Individual Channel Configuration	Yes
Open Wire Detection	For 4 to 20 mA only
Isolation	±400 VDC, Virtual Channel to Channel Isolation
Analog Output	
Channels	2
Type	Voltage Current
Range	+0 to +5 VDC, ±5 VDC, +0 to +10 VDC, ±10 VDC 0 to 20 mA, 4 to 20 mA (Jumper Selectable)
Resolution	12-bit
Accuracy	±0.1% of 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
Digital Input/Counter	
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 to +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

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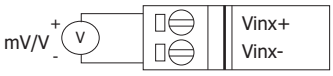
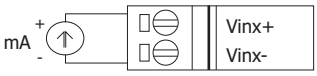
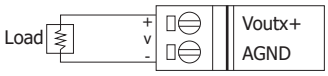
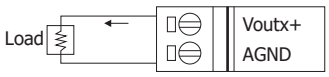
Model	ETS-7226
Digital Output	
Channels	2
Type	Isolated Open Collector
Sink/Source (NPN/PNP)	Sink
Load Voltage	+5 to +50 VDC
Load Current	700 mA/channel
Overvoltage Protection	+60 VDC
Overload Protection	1.4 A
Short-circuit Protection	Yes
Power on Value	Programmable
Safe Value	Programmable
Ethernet	
Ports	2 x RJ-45, 10/100 Base-TX, Swtich Ports
LAN bypass	Yes
Access Control	ID, Password and IP Filter
Protocol	Modbus TCP, Modbus TCP/TLS, Modbus UDP, MQTT, Rest API, CoAP, LwM2M, SNMP, SMTP, SNTP, HTTP/HTTPS
Power	
Reverse Polarity Protection	Yes
Consumption	4.4 W (max.)
Powered from PoE	Yes, IEEE 802.3af, Class 2
Powered from Terminal Block	+12 to +48 VDC
Mechanical	
Dimensions (mm)	76 x 120 x 38 (W x L x H)
Installation	DIN-Rail mounting
Environment	
Operating Temperature	-25 to +75°C
Storage Temperature	-30 to +80°C
Humidity	10 to 90% RH, Non-condensing

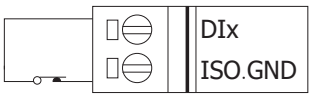
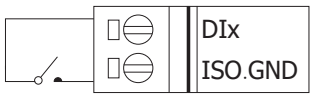
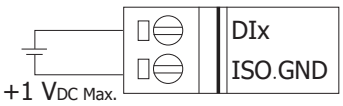
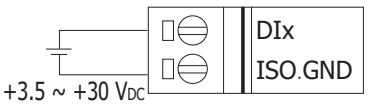
Pin Assignments

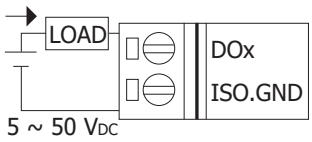
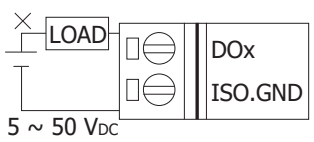


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Wire Connections

Analog Input		
Voltage Input (Default)		
		
Current Input		
		
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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