

ETS-7255

Ethernet I/O Module with 2-port Ethernet Switch, 8-ch DI and 8-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
  - DI/Counter: 8 Channels
  - DO: 8 Channels
- Fast Boot (< 5 Second)

Introduction

The ETS-7255 provides 8 dry/wet contact digital input channels and 8 source-type digital output channels, 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 features optical isolation for 2500 VDC of transient overvoltage protection but doesn't provide channel-to-channel isolation. Each input channel can be used as a 32-bit counter and each output channel can drive 650 mA load. The power-on value and safe value of digital output channel are programmable. It can safely be used in applications where hazardous voltages are present.

ETS-7255 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-7255
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

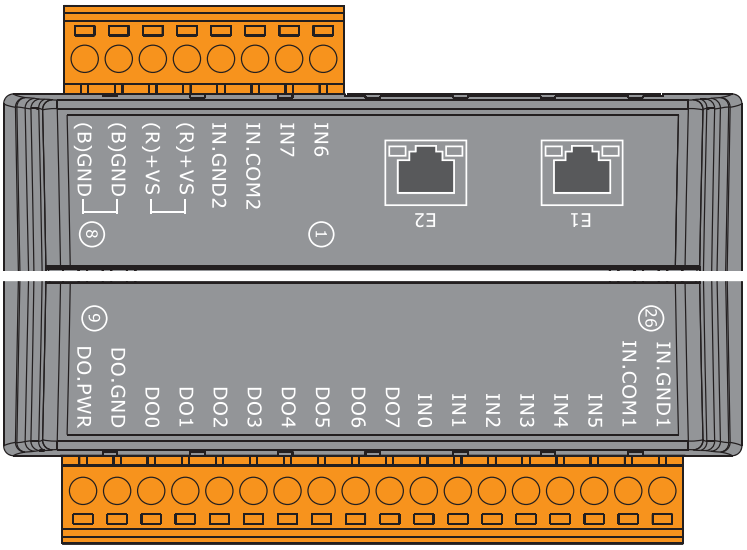
Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Specifications

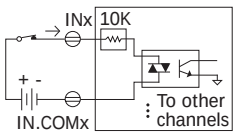
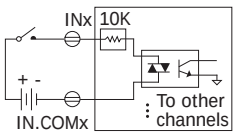
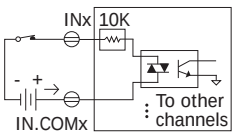
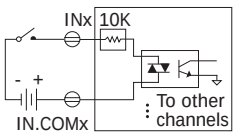
Model	ETS-7255
Digital Input/Counter	
Channels	8
Type	Dry Contact Wet Contact
Sink/Source (NPN/PNP)	Dry: Source Wet: Sink/Source
ON Voltage Level	Dry: Close to GND Wet: +10 to +50 VDC
OFF Voltage Level	Dry: Open Wet: +4 VDC (max.)
Max. Counts	4,294,967,295 (32-bit)
Frequency	100 Hz
Min. Pulse Width	5 ms
Effective Distance	500m (max.)
Input Impedance	10 kΩ
Overvoltage Protection	+70 VDC
Digital Output	
Channels	8
Type	Isolated Open Collector
Sink/Source (NPN/PNP)	Source
Load Voltage	+10 to +40 VDC
Load Current	650 mA/channel at 25°C
Overvoltage Protection	+47 VDC
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 ~ +48 VDC
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

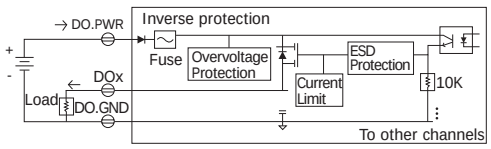
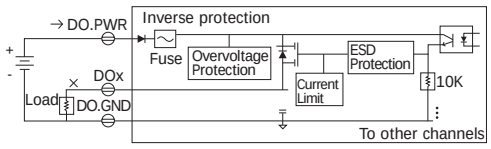
Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

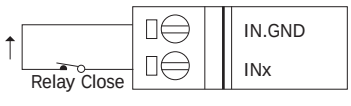
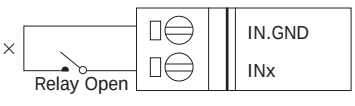
Pin Assignments



Wire Connections

Digital Input /Counter	Readback as 1	Readback as 0
Wet Contact (Sink)	+10 ~ +50 VDC	OPEN or <4 VDC
		
Wet Contact (Source)	+10 ~ +50 VDC	OPEN or <4 VDC
		

Digital Output	ON State Readback as 1
Source	
	OFF State Readback as 0
	

Digital Input /Counter	ON State Readback as 1	OFF State Readback as 0
Dry Contact		

Ordering Information

ETS-7255 CR	Ethernet I/O Module with 2-port Ethernet Switch, 8-ch DI and 8-ch DO (RoHS)

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000