



## ET-2255

Ethernet I/O Module with 8-ch DI, 8-ch DO

### Features

- Built-in Web Server
- Support Modbus TCP/UDP Protocols
- Powerful 32-bit MCU Handles Efficient Network Traffic
- 2-port Ethernet Switch (LAN Bypass) for Daisy-Chain Wiring
- Dual Watchdog
- I/O Pair Connection (Push and Polling)
- Easy Firmware Update via Ethernet
- LED Display to Indicate the I/O status
- Wide Operating Temperature Range: -25 ~ +75°C
- Built-in I/O
  - 8 Wet/Dry Contact Digital Input Channels
  - 8 Sink-type Digital Output Channels



### Introduction

The ET-2255 provides 8 wet/dry contact Digital Input channels and 8 sink-type Digital Output channels. With 2 Ethernet ports, The ET-2255 allows daisy chain connection which permits the flexibility in locating devices, eases installation and lowers infrastructure costs. It features optical isolation for 3000 Vrms 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. It features 8 kV ESD protection, 4 kV EFT protection, 3 kV surge and 3000 Vdc I/O isolation to enrich the noise protection ability for industrial environment.

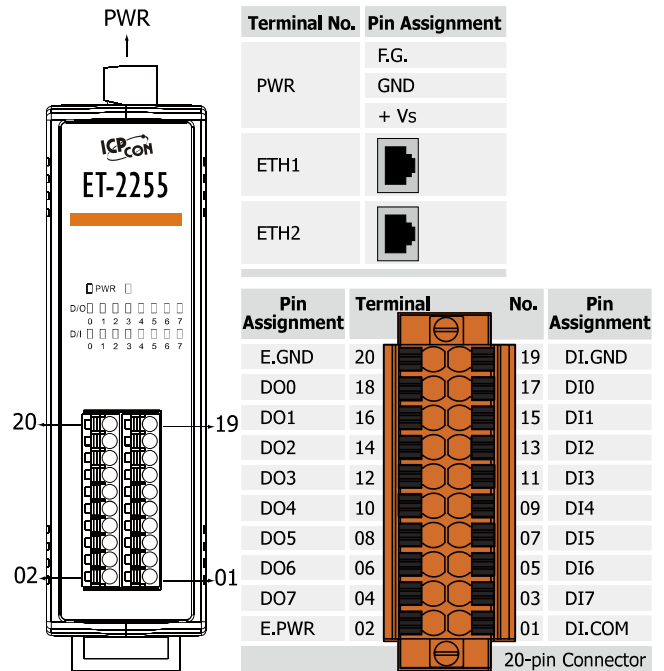
### System Specifications

System	
CPU	32-bit ARM
Communication	
Ethernet Port	2 x RJ-45, 10/100 Base-TX, Switch Ports
Protocol	Modbus TCP, Modbus UDP
Security	Password and IP Filter
I/O Pair Connection	Yes (Push, Polling)
Dual Watchdog	Yes, Module, Communication (Configurable)
LAN Bypass	Yes
LED Indicators	
System Running	Yes
Ethernet Link/Act	Yes
DI/DO status	Yes
2-Way Isolation	
Ethernet	1500 Vdc
I/O	3000 Vdc
EMS Protection	
ESD (IEC 61000-4-2)	±8 kV Contact for Each Terminal and ±16 kV Air for Random Point
EFT (IEC 61000-4-4)	±4 kV for Power Line
Surge (IEC 61000-4-5)	±3 kV for Power Line
Power	
Reverse Polarity Protection	Yes
Powered from Terminal Block	+10 ~ +30 Vdc
Consumption	2.9 W (Max.)
Mechanical	
Dimensions (L x W x H)	127 mm x 33 mm x 99 mm
Installation	DIN-Rail Mounting
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +80°C
Humidity	10 ~ 90% RH, Non-condensing

## I/O Specifications

Digital Input/Counter		
Channels	8	
Contact	Wet Contact/Dry Contact	
Sink/Source (NPN/PNP)	Sink/Source	
On Voltage Level	+5 Vdc ~ +50 Vdc	
Off Voltage Level	+1 Vdc Max.	
Input Impedance	7.5 kΩ	
Counters	Max. Count	4,294,967,295 (32 bits)
	Max. Input Frequency	3 kHz
	Programmable Digital Filter	1 ~ 6500 ms (0.08 Hz ~ 500 Hz)
Overvoltage Protection	+70 Vdc	
Digital Output		
Channels	8	
Type	Open Collector	
Sink/Source (NPN/PNP)	Sink	
Load Voltage	+3.5 V ~ +50 V	
Max. Load Current	650 mA/Channel	
Overload Protection	1.4 (with short-circuit protection)	
Overvoltage Protection	+60 Vdc	

## Pin Assignments



## Wire Connections

Digital Input/Counter	Readback as 1	Readback as 0
Dry Contact	Close to GND 	Open 
	Wet Contact (Sink) +5 ~ +50 Vdc 	OPEN or <1 Vdc 
Wet Contact (Source) +5 ~ +50 Vdc 	OPEN or <1 Vdc 	

Output Type	ON State Readback as 1	OFF State Readback as 0
Drive Relay 		
Resistance Load 		

## Ordering Information

<b>ET-2255 CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, 8-ch wet/dry contact Digital Input and 8-ch sink-type Digital Output (RoHS)
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## Related Products

	NS-205 CR	Unmanaged 5-Port Industrial Ethernet Switch with Power Input +10 ~ +30 Vdc (RoHS)
	NS-208 CR	Unmanaged 8-port Industrial 10/100 Base-TX Ethernet Switch with Power Input +10 ~ +30 Vdc (RoHS)
	DIN-KA52F CR	24 V/1.04 A, 25 W Power Supply with DIN-Rail Mounting (RoHS)
	GPSU06U-6	24 V/0.25 A (max.) Power Supply