



**ET-2255U**

**PET-2255U**

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

## Features

- Built-in Web Server
- Support Modbus TCP/UDP, MQTT, and SNMP V2c Protocols
- 2-port Ethernet Switch (LAN Bypass) for Daisy-Chain Wiring
- Dual Watchdog
- I/O Pair Connection (Push and Pull)
- Built-in I/O
  - 8-channel Wet or Dry contact DI
  - 8-channel DO selectable as either sink- or source-type via wire connection
- LED Display to Indicate the I/O Status



## Introduction

The (P)ET-2255U provides 8 wet/dry contact Digital Input channels and 8 sink- or source-type Digital Output channels by wire connection. With 2 Ethernet ports, The (P)ET-2255U 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 500 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.

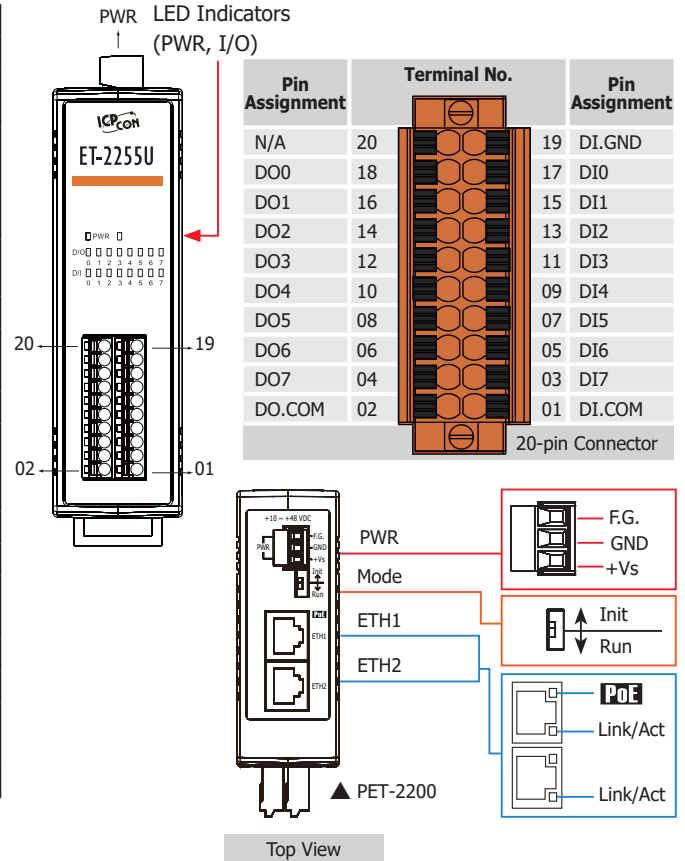
## System Specifications

Model	ET-2255U	PET-2255U
<b>Software</b>		
Built-in Web Server	Yes	
<b>CPU Module</b>		
CPU	32-bit ARM	
Watchdog Timer	Module, Communication (Programmable)	
<b>Isolation</b>		
2-way Isolation	Ethernet: 1500 VDC, I/O: 3000 VDC	I/O: 3000 VDC
<b>EMS Protection</b>		
EFT (IEC 61000-4-4)	±4 kV for Power Line	
ESD (IEC 61000-4-2)	±8 kV Contact for Each Terminal, ±16 kV Air for Random Point	
Surge (IEC 61000-4-5)	±2 kV for Power Line	
<b>LED Indicators</b>		
Status	Run, Ethernet, I/O	Run, Ethernet, I/O, PoE
<b>Ethernet</b>		
Ports	2 x RJ-45, 10/100 Base-Tx, Switch Ports	
PoE	-	Yes
LAN bypass	Yes	
Security	Password and IP Filter	
Protocol	Modbus TCP, Modbus UDP, MQTT, and SNMP V2c	
<b>Power</b>		
Reverse Polarity Protection	Yes	
Consumption	3.1 W (max.)	3.7 W (max.)
Powered from PoE	-	IEEE 802.3af, Class1
Powered from Terminal Block	+10 to +48 VDC	
<b>Mechanical</b>		
Casing	Plastic	
Dimensions (mm)	33 x 126 x 108 (W x L x H)	
Installation	DIN-Rail Mounting	
<b>Environment</b>		
Operating Temperature	-25 to +75°C	
Storage Temperature	-40 to +80°C	
Humidity	10 to 90% RH, Non-condensing	

## I/O Specifications

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: +5 to +50 VDC
OFF Voltage Level	Dry: Open Wet: +1 VDC (max.)
Max. Counts	4,294,967,295 (32-bit)
Frequency	3 kHz
Input Impedance	7.5 kΩ
Overvoltage Protection	+70 VDC
Low Pass Filter	1 to 6500 ms (0.08 Hz to 500 Hz)
Digital Output	
Channels	8
Type	Push-Pull
Sink/Source (NPN/PNP)	Sink/Source
Load Voltage	+3.5 to +80 V
Load Current	500 mA/channel
Overvoltage Protection	-
Overload Protection	-
Power-on Value	Programmable
Safe Value	Programmable

## Pin Assignments

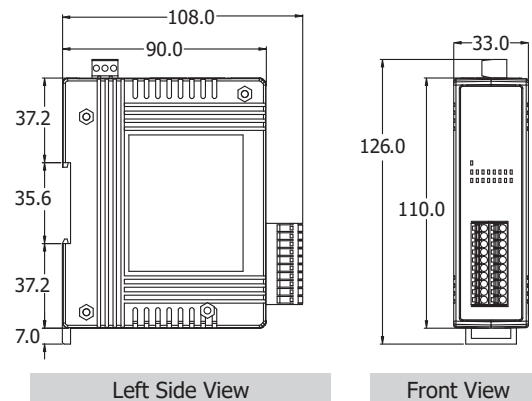


## Wire Connections

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

Output Type	ON State Readback as 1	OFF State Readback as 0
Sink		
Source		

## Dimensions (Units: mm)



## Ordering Information

<b>ET-2255U CR</b>	Ethernet I/O Module with 2-port Ethernet Switch, 8-ch DI, and 8-ch Sink/Source-type DO (RoHS)
<b>PET-2255U CR</b>	PoE Ethernet I/O Module with 2-port Ethernet Switch, 8-ch DI, and 8-ch Sink/Source-type DO (RoHS)