



ET-2255U 

PET-2255U

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

Features

- Web Server for Configuration
- Support Modbus TCP/UDP, MQTT, and SNMP V2c Protocols
- 2-port Ethernet Switch (LAN Bypass) for Daisy-chain Wiring
- Supports Dual-watchdog
- I/O Pair Connection (Push and Pull)
- Built-in I/O
 - ☐ 8-ch DI (Wet/Dry)
 - ☐ 8-ch DO (Sink/Source)
- LED Display to Indicate the I/O Status



Introduction

(P)ET-2255U is an 8-channel DI (Wet/Dry Contact) and 8-channel DO (Sink-type or Source-type) module, selectable via wiring. Each input channel can function as a 32-bit counter, while each output channel can be configured with a power-on value and safe value, ensuring the module's safe operation in applications with hazardous voltages. The module includes a built-in 2-port Ethernet switch, facilitating a daisy-chain topology. This feature offers flexibility in device configuration, simplifies installation, and reduces infrastructure costs. The module features optical-isolated 3000 Vrms transient overvoltage protection and does not support channel-to-channel isolation. Additionally, the module provides EMS (EFT/ESD/Surge) protection and 3000 VDC I/O isolation to enhance noise protection capabilities in industrial environments.

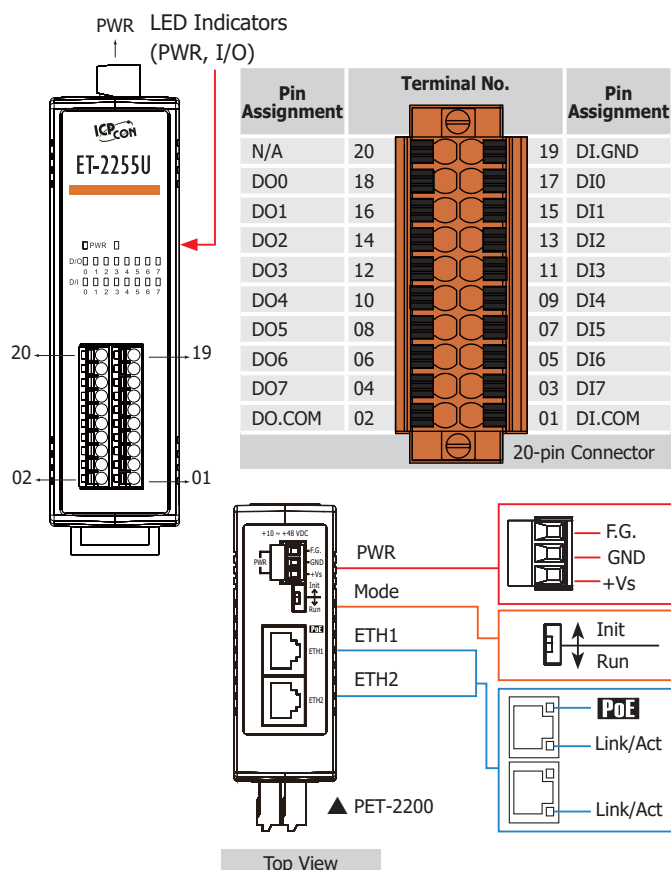
System Specifications

Model	ET-2255U	PET-2255U
Software		
Built-in Web Server	Yes	
CPU Module		
CPU	32-bit ARM	
Watchdog Timer	Module, Communication (Programmable)	
Isolation		
2-way Isolation	Ethernet: 1500 VDC, I/O: 3000 VDC	I/O: 3000 VDC
EMS Protection		
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	
LED Indicators		
Status	Run, Ethernet, I/O	Run, Ethernet, I/O, PoE
Ethernet		
Ports	2 x RJ-45, 10/100 Base-Tx, Switch Ports	
PoE	-	Yes
LAN bypass	Yes	
Access Control	Password and IP Filter	
Protocol	Modbus TCP, Modbus UDP, MQTT, SNMP V2c	
Power		
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 ~ +48 VDC	
Mechanical		
Casing	Plastic	
Dimensions (mm)	33 x 126 x 108 (W x L x H)	
Installation	DIN-Rail Mounting	
Environment		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-40 ~ +80 °C	
Humidity	10 ~ 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 ~ +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 ~ 6500 ms (0.08 Hz ~ 500 Hz)
Digital Output	
Channels	8
Type	Push-Pull
Sink/Source (NPN/PNP)	Sink/Source
Load Voltage	+3.5 ~ +80 V
Load Current	500 mA/channel
Overvoltage Protection	-
Overload Protection	-
Power-on Value	Programmable
Safe Value	Programmable

Pin Assignments

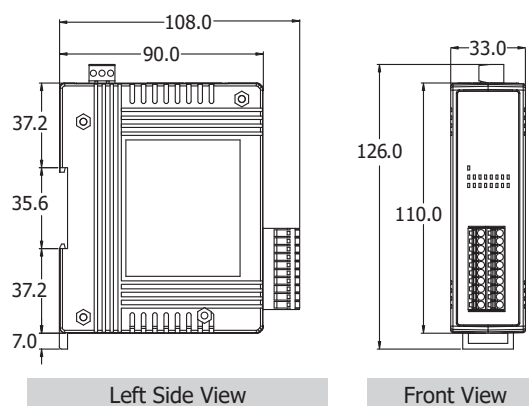


Wire Connections

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

Dimensions (Units: mm)



Ordering Information

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