

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 V_{rms} transient overvoltage protection and does not support channel-to-channel Isolation. Additionally, the module provides EMS (EFT/ESD/Surge) protection and 3000 V_{DC} 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 V_{DC}, I/O: 3000 V_{DC}	I/O: 3000 V_{DC}
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.)

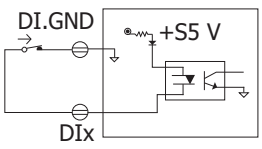
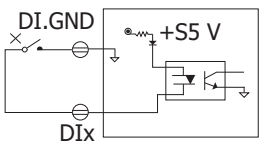
LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Model	ET-2255U	PET-2255U
Powered from PoE	-	IEEE 802.3af, Class1
Powered from Terminal Block	+10 ~ +48 V_{DC}	
Mechanical		
Casing	Plastic	
Dimensions (mm)	33 x 126 x 108 (W x L x H)	
Installation	DIN-Rail Mounting	
Environment		
Operating Temperature	-25 ~ +75 ℃	
Storage Temperature	-40 ~ +80 ℃	
Humidity	10 ~ 90% RH, Non-condensing	

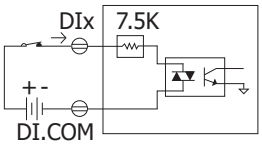
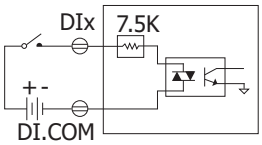
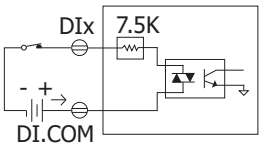
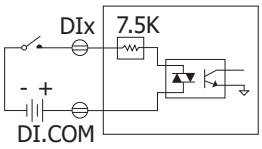
I/O Specifications

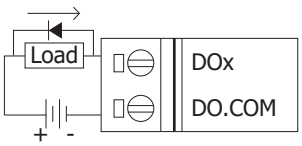
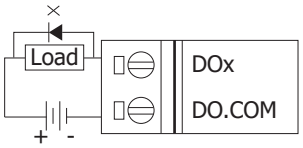
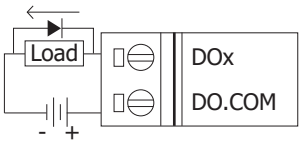
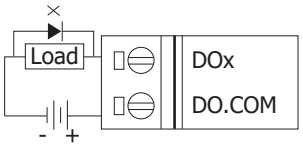
Digital Input/Counter	
Channels	8
Type	Dry Contact Wet Contact
Sink/Source (NPN/PNP)	Dry: Source Wet: Sink/Source
ON Voltage Level	Dry: CloseGND Wet: +5 ~ +50 V_{DC}
OFF Voltage Level	Dry: Open Wet: +1 V_{DC} (max.)
Max. Counts	4,294,967,295 (32-bit)
Frequency	3 kHz
Input Impedance	7.5 kΩ
Overvoltage Protection	+70 V_{DC}
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

Wire Connections

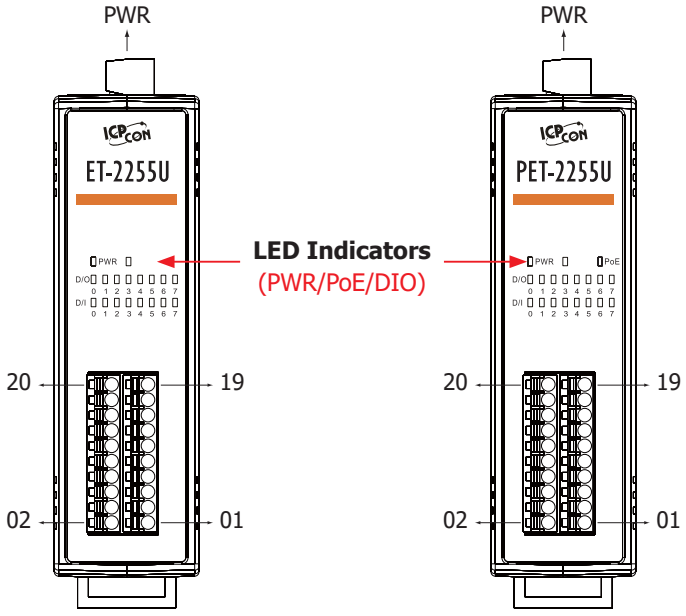
Digital Input/Counter	Readback as 1	Readback as 0
Dry Contact	Close to GND	Open
		

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

Digital Input/Counter	Readback as 1	Readback as 0
	+5 ~ +50 VDC	OPEN or <1 VDC
Wet Contact (Sink)		
Wet Contact (Source)		

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

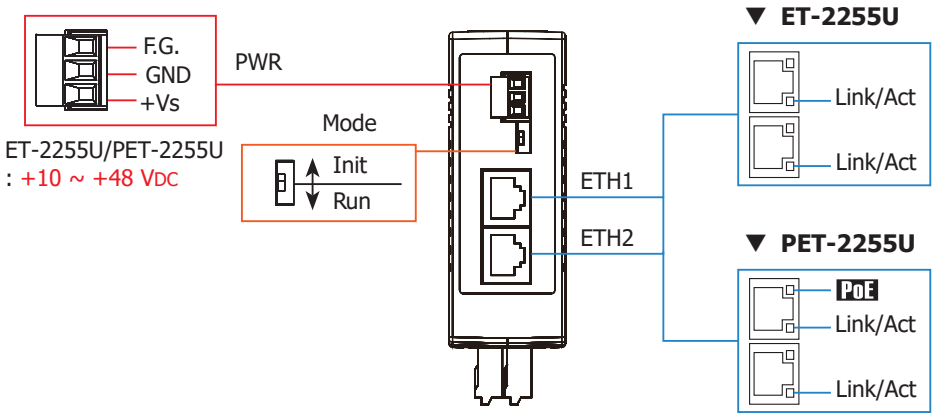
Pin Assignments



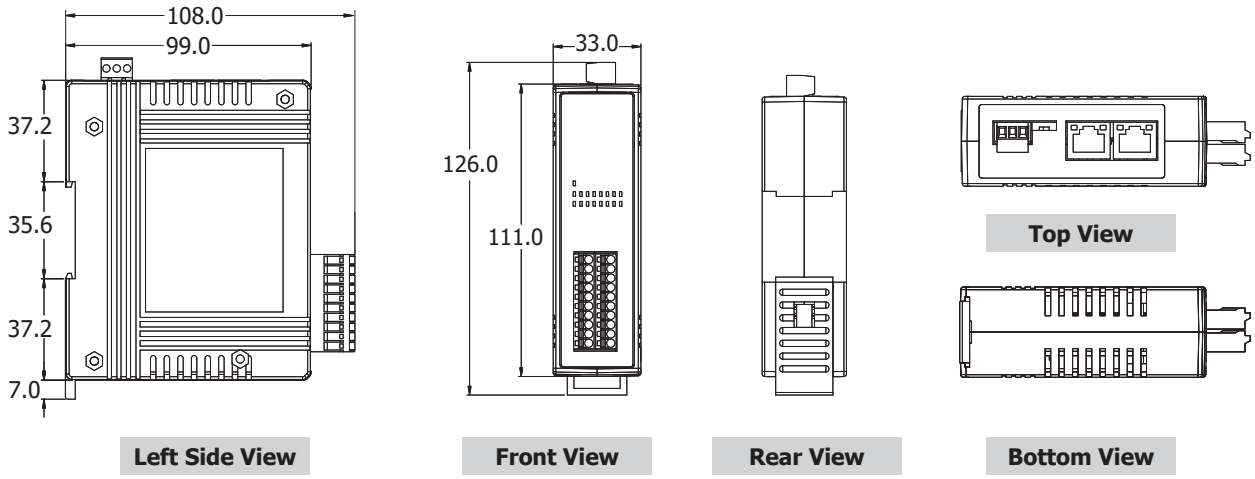
Pin Assignment	Terminal No.		Pin Assignment
N/A	20	19	DI.GND
DO0	18	17	DI0
DO1	16	15	DI1
DO2	14	13	DI2
DO3	12	11	DI3
DO4	10	09	DI4
DO5	08	07	DI5
DO6	06	05	DI6
DO7	04	03	DI7
DO.COM	02	01	DI.COM

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

Appearance



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)

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