ET-2260

Ethernet I/O Module with 6-ch Relay, 6-ch DI

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
  - DI/Counter: 6 Channels
  - Power Relay: 6 Channels

Introduction

The ET-2260 provides 6 wet contact Digital Input channels and 6 Form A electromechanical Relays. With 2 Ethernet ports, the ET-2260 allows daisy chain connection which permits the flexibility in locating devices, eases installation and lowers infrastructure costs. It features 8 kV ESD protection, 4 kV EFT protection, 3 kV surge and 3750 VDC I/O isolation to enhance noise protection capabilities in industrial environments. Each input channel can be used as a 32-bit counter. The power-on value and safe value of relay are configurable.

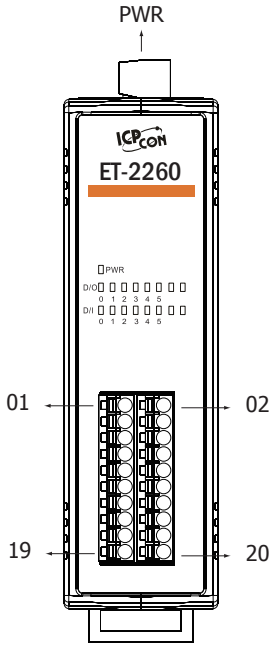
System Specifications

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	3750 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	3.3 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		6
Contact		Wet 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
Power Relay		
Channels		6
Type		Power Relay, Form A (SPST N.O.)
Contact Rating		5 A @ 250 VAC/24 VDC (Resistive Load)
Min. Contact Load		10 mA @ 5 V
Operate Time		10 ms (max.)
Release Time		5 ms (max.)
Mechanical Endurance		2×10^7 ops.
Electrical Endurance		10^5 ops.
Power-on Value		Yes, Configurable
Safe Value		Yes, Configurable

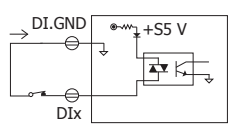
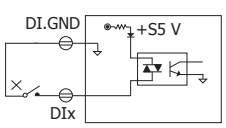
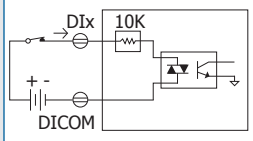
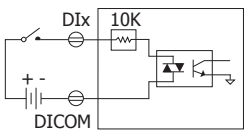
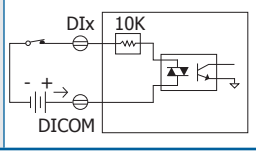
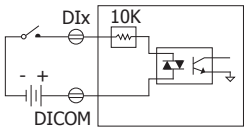
Pin Assignments

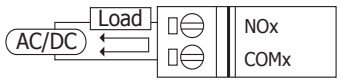
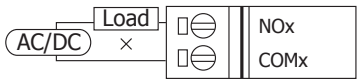


Terminal No.	Pin Assignment
PWR	F.G.
	GND
	+ Vs
ETH1	
ETH2	

Terminal No.	Pin Assignment	Pin Assignment	Terminal No.
01	NO0	GND	02
03	COM0	DI0	04
05	NO1	DI1	06
07	COM1	DI2	08
09	NO2	DI3	10
11	COM2	DI4	12
13	NO3	DI5	14
15	COM3	DICOM	16
17	NO4	NO5	18
19	COM4	COM5	20

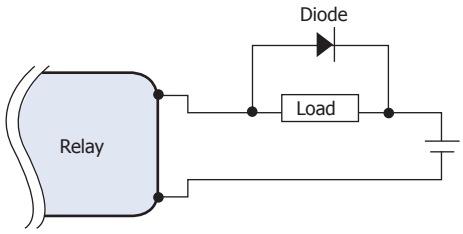
Wire Connections

Digital Input/ Counter	Readback as 1	Readback as 0
Dry Contact	Close to GND	Open
		
Sink	+10 ~ +50 VDC	OPEN or <4 VDC
		
Source	+10 ~ +50 VDC	OPEN or <4 VDC
		

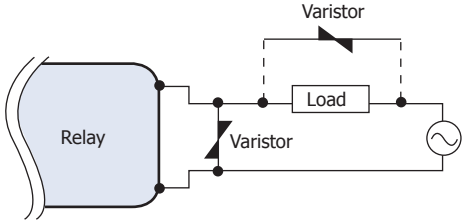
Power Relay	ON State Readback as 1
Relay Output	
	OFF State Readback as 0
	

Note: When inductive loads are connected to the relays, a large counter electromotive force may occur when the relay actuates because of the energy stored in the load. These flyback voltages can severely damage the relay contacts and greatly shorten the relay life. Limit these flyback voltages at your inductive load by installing a flyback diode for DC loads or a metal oxide varistor for AC loads.

for DC loads



for AC loads



Ordering Information

ET-2260 CR	Ethernet I/O Module with 2-port Ethernet Switch, 6-ch Relay Output and 6-ch DI (RoHS)

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