

**ET-7005**

**PET-7005**

Ethernet I/O Module with 8-channels Thermistor Inputs,  
4-channels DO

**Features**

- Built-in Web Server
- Web HMI
- Support for both Modbus TCP and Modbus UDP Protocols
- Communication Security
- Dual Watchdog
- Wide Operating Temperature Range: -25 ~ +75°C
- I/O Pair Connection
- Built-in I/O
  - Thermistor Input: 8 Channels
  - DO: 4 Channels



**Introduction**

ET-7005/PET-7005 is used for measuring temperature by the thermistor. It supports many kinds of thermistors and features individual channel configuration which means that eight of its input channels can individually be configured with different kind of thermistor and supports user-defined types by specifying the Steinhart coefficients to add other thermistors, if necessary. Besides, ET-7005/PET-7005 also has 4-channel digital outputs for alarm output with Short-circuit protection and overload protection. Adding 2500 Vdc intra-module isolation and 110 Vdc/VAc overvoltage protection for thermistor on ET-7005/PET-7005 makes itself running with higher reliability.

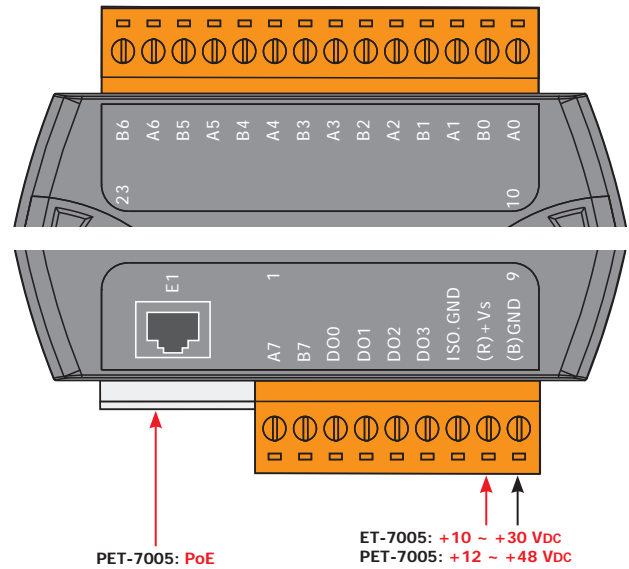
**System Specifications**

Models	ET-7005	PET-7005
<b>Software</b>		
Built-in Web Server		Yes
Web HMI		Yes
I/O Pair Connection		Yes
<b>Communication</b>		
Ethernet Port	10/100 Base-TX with Auto MDI/MDI-X	
PoE	-	Yes
Protocol	Modbus TCP, Modbus UDP	
Security	ID, Password and IP Filter	
Dual Watchdog	Yes, Module (0.8 seconds), Communication (Programmable)	
<b>LED Indicators</b>		
L1 (System Running)		Yes
L2 (Ethernet Link/Act)		Yes
L3 (Ethernet 10/100 M Speed)		Yes
PoE Power	-	Yes
<b>2-Way Isolation</b>		
Ethernet	1500 Vdc	-
I/O	2500 Vdc	2500 Vdc
<b>EMS Protection</b>		
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal and ±8 kV Air for Random Point	
EFT (IEC 61000-4-4)	±4 kV for Power Line	
<b>Power</b>		
Reverse Polarity Protection		Yes
Powered from Terminal Block	Yes, 10 ~ 30 Vdc	Yes, 12 ~ 48 Vdc
Powered from PoE	-	Yes, IEEE 802.3af, Class1
Power Output	-	-
Consumption	2.1 W (Max.)	3.0 W (Max.)
<b>Mechanical</b>		
Dimensions (L x W x H)	123 mm x 72 mm x 35 mm	
Installation	DIN-Rail or Wall Mounting	
<b>Environment</b>		
Operating Temperature	-25 ~ +75°C	
Storage Temperature	-30 ~ +80°C	
Humidity	10 ~ 90% RH, Non-condensing	

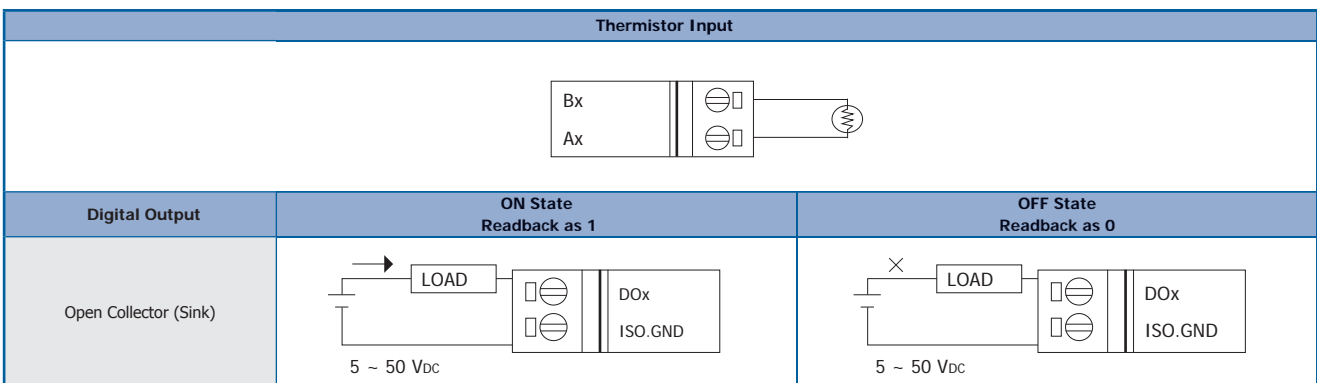
### I/O Specifications

Thermistor Input	
Channels	8 (Differential)
Sensor Type (thermistor)	Precon ST-A3, Fenwell U, YSI L100, YSI L300, YSI L1000, YSI B2252, YSI B3000, YSI B5000, YSI B6000, YSI B10000, YSI H10000, YSI H30000, User-defined
Individual Channel Configuration	Yes
Resolution	16-bit
Sampling Rate	10 Sample/Second (Total)
Accuracy	+/-0.1% or better
Zero Drift	+/-20 $\mu$ V/ $^{\circ}$ C
Span Drift	+/-25 ppm/ $^{\circ}$ C
Overvoltage Protection	110 Vdc/VAc
Common Mode Rejection	86 dB
Normal Mode Rejection	100 dB
Open Wire Detection	Yes
Digital Output	
Channels	4
Type	Isolated Open Collector
Sink/Source (NPN/PNP)	Sink
Max. Load Current	700 mA/Channel
Load Voltage	5 Vdc ~ 50 Vdc
Overvoltage Protection	60 Vdc
Overload Protection	1.4 A
Short-circuit Protection	Yes
Power-on Value	Yes, Programmable
Safe Value	Yes, Programmable

### Pin Assignments



### Wire Connections



### Ordering Information

ET-7005 CR	Ethernet I/O Module with 8-ch Thermistor Inputs, 4-channels DO (RoHS)
PET-7005 CR	PoE Ethernet I/O Module with 8-ch Thermistor Inputs, 4-channels DO (RoHS)