



4-slot Intelligent Ethernet I/O Expansion Unit (Modbus TCP Protocol)

# ■ Two Ethernet Ports for Daisy-Chain Topology ■ LAN Bypass Feature ■ Hot Swap Allowed ■ Auto Configuration ■ LED Indicators for Fault Detection ■ DCON Protocol (ASCII-based protocol) ■ 4/8 I/O Slots for I-87K Series Modules ■ Operating Temperature: -25 ~ +75 °C

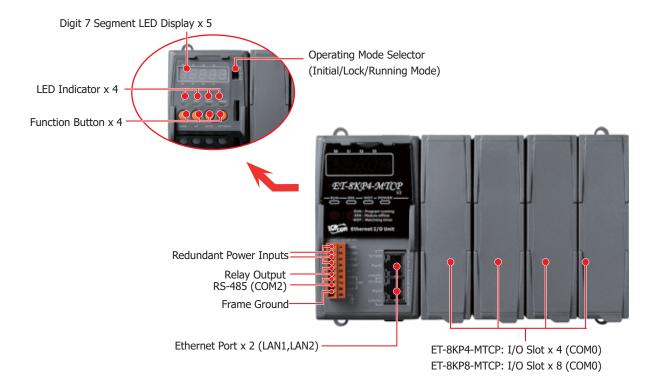
### Introduction

ET-8KP4-MTCP/ET-8KP8-MTCP is a Modbus TCP I/O expansion unit to expand I-87K series I/O modules over the Ethernet for industrial monitoring and controlling applications. It offers two Ethernet switch ports for daisy-chain topology. The daisy-chain feature allows ET-8KP4-MTCP/ET-8KP8-MTCP to connect in series to each other or other Ethernet devices. Users can easily simplify the cabling and save installation space with the feature. It is designed to be used in harsh and noisy environment, so the hardware is manufactured with wide power input range ( $10 \sim 30 \text{ VDC}$ ), isolated power input and can operate under wide temperature ( $-25 \sim +75 \text{ °C}$ ).

There are more than 50 I/O modules supported with the unit, including analog input/output, digital input/output, DI counter modules. To simplify installation and maintenance of I/O modules, it provides many useful features, such as: auto configuration, LED indicators for fault detection, dual watchdog to keep alive, programmable power on and safe values for safety.

Modbus is a very wide known protocol in the industrial manufacturing and environment monitoring fields. Many SCADA software, HMI and PLC has builtin driver to support Modbus devices. Besides, we also provide SDK on different platforms, such as Windows XP, Window CE 5.0/6.0, Linux, MiniOS7. Therefore, it is very easy to integrate remote I/O to customer's applications.

### Appearance

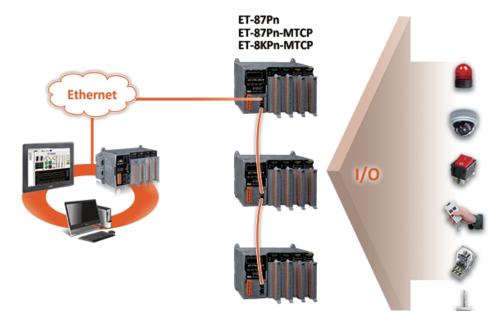


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# **■ Specifications**

Models	ET-8KP4-MTCP	ET-8KP8-MTCP
Ethernet		
Protocol	Modbus TCP Slave, Modbus TCP to RTU Gateway	
Port Type	2 x RJ-45, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)	
Cabling	Daisy-Chain Ethernet Cabling	
Isolation	3000 VDC	
ESD Protection	+/- 4 K Contact Discharge and +/- 8 K Air Discharge	
Communication Protocol	DCON Protocol (ASCII format)	
SMMI		
7-Segment Display	5	
LED Indicator	1 x Run, 1x Module offline, 1 x WDT, 1 x Power	
Push Button	4	
I/O Expansion		
I/O Type	I-8K, I-87K series	
Slots	4	8
Mechanical		
Dimensions (W x L x H, unit: mm)	188 x 132 x 111	312 x 132 x 111
Installation	DIN-Rail, Wall mounting	
Environmental		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-30 ∼ +80 °C	
Ambient Relative Humidity	10 ~ 90 % RH, Non-condensing	
Power		
Input Range	+10 ~ 30 VDC (1 kV Isolated)	
Reverse Polarity Protection	Yes	
Consumption	6.0 W	

# **■ Applications**

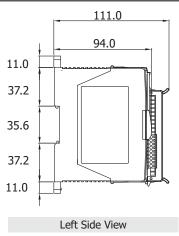


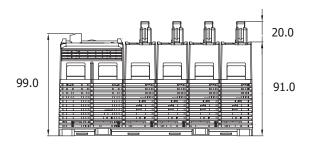
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# **■** Dimensions (Units: mm)

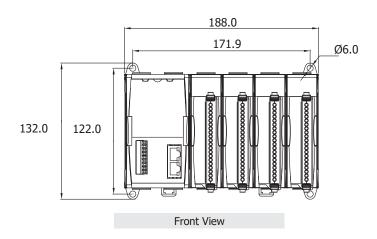
## ET-8KP4-MTCP/ET-8KP8-MTCP



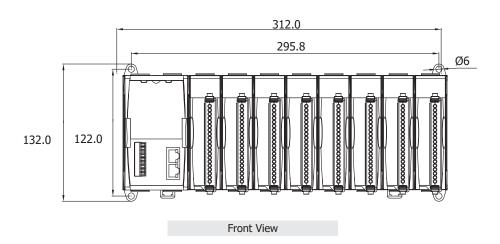


Bottom View

### ET-8KP4-MTCP



## ET-8KP8-MTCP



# **■** Ordering Information

ET-8KP4-MTCP CR	4-slot Intelligent Ethernet I/O Expansion Unit (Modbus TCP Protocol) (RoHS)
ET-8KP8-MTCP CR 8-slot Intelligent Ethernet I/O Expansion Unit (Modbus TCP Protocol) (RoHS)	

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