

Model PC-E Protocol Converter

Serial Modbus RTU Protocol to Modbus TCP/IP Ethernet Converter for PLC, HMI, SCADA, etc.

The model PC-E Protocol Converter (Serial Modbus / Ethernet) is an interface to bridge Serial Modbus devices, such as Future Design Controls [FDC-IO Series](#) (Digital / Analog IO to Modbus RS232/485) to computer hosts running Modbus/TCP on Ethernet networks (10/100 Base-TX Ethernet network). The PC-E may be connected to multiple Serial Modbus devices and multiple PC-E converters may be connected to Ethernet networks.

Fully compliant with Modbus/TCP, the PC-E offers a convenient solution to connect existing devices or controllers running Modbus Serial protocol (Modbus/RTU) to an Ethernet network.

The Ethernet/Serial Converter can be configured to operate in a number of different modes depending on the application. It can be configured as a transparent data link or it can perform the gateway function of converting Modbus TCP messages to Modbus RTU messages.

The PC-E allows OEM equipment manufacturers, system integrators, and end users to connect control devices with Serial Modbus ports to Ethernet networks quickly & cost-effectively.



Features

- Supports Serial Modbus/RTU
 - Transparent Mode: TCP or UDP
 - Modbus Gateway: TCP or UDP
- Connect to multiple Serial Modbus devices
- Supports 10/100 Mbps communication speeds
- Allows up to 4 Masters to access data
- Power Supply: 10VDC to 26VDC
- Easy DIN Rail mounting
- Configuration via Web Server



PC-E Technical Specifications

Power

Power Supply: 10 VDC to 26VDC
 Power Consumption: 90mA @10VDC / 40mA @26VDC

Mechanical

Dimensions [W x H x D]: 70 x 106 x 59.58 mm
 2.76 x 4.17 x 2.34 inches
 Mounting: DIN Rail
 Wiring Connection: Terminal Block – 8 screws

Temperature / Humidity

Storage Temperature: -40C to +85C
 Operating Temperature: -10C to +50C
 Humidity: up to 95% non-condensing

LED Display: Power, Ethernet Link, Ethernet Activity,
 TX/RX Serial, Modbus TCP & Web Server
 communication

Ethernet Communication

Ethernet Interface: 10/100 Mbits/s and 10/100 Base - TX
 Ethernet Connector: RJ45 plug

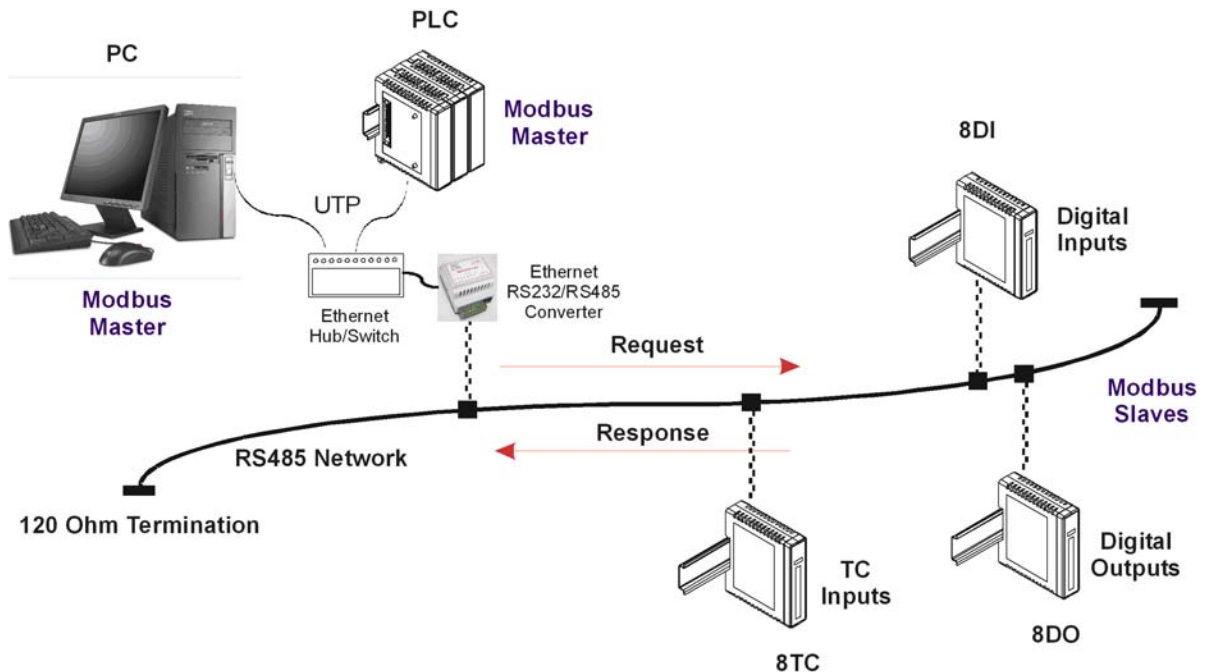
Serial Communication

RS232: 3-wire; TX, RX, GND
 RS485: 2-wire multi drop twisted pair
 Baud Rate: 2400 – 115,200
 Parity: None, Even or Odd
 Stop Bits: 1 or 2
 Data Bits: 5, 6, 7, 8

Serial / Ethernet Converter Modes: [\(Refer to Manual\)](#)

Transparent Mode: TCP or UDP
 Modbus Gateway: TCP or UDP

Sample Network diagram showing multiple Masters communicating on a link with 3 slaves shown as Digital Inputs, Digital Outputs & TC Inputs



Ordering Code

| <u>Model Number</u> | <u>Description</u> |
|---------------------|--|
| PC-E | Protocol Converter – Serial Modbus to Modbus TCP/IP Ethernet |

Accessories

| <u>Part Number</u> | <u>Description</u> |
|----------------------------|--|
| SN10A | RS232 to 485 Converter (PC RS232 to Module(s) RS485) |
| DB9M-DB9F-6ft | Serial cable SN10A to PC |
| PSR5R-SD24 | Power Supply (DIN Rail Mount) Power Input: 85-264VAC Power Output: 24VDC 60 Watt (2.5 amp) Contact for larger capacity Power Supplies |

Ethernet Patch Cable Part Number

CA-CAT5E-Patch-7ft
 CA-CAT5E-Patch-25ft
 CA-CAT5E-Patch-50ft
 CA-CAT5E-Patch-100ft

Ethernet Crossover Cable

CA-CAT5E-Crossover-7ft
 CA-CAT5E-Crossover-15ft

[FDC_PC-E_Manual_v1.0_August-2007.pdf](#)

FDC_PC-E_Brochure_v1.0_August-2007

<http://www.futuredesigncontrols.com>

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