

MODELS:  
CONV-E

TYPE: CONV-E  
ETHERNET-RS485 CONVERTER

## Overview

The Innotech *Conv-E* is a bi-directional protocol converter between Ethernet and RS485. It is intended to act as an intermediate translator between a computer network and an Innotech Genesis or Maxim network. The *Conv-E* is compatible with Windows® Vista 32-bit, XP, NT and 2000.

## Features

- Fully Isolated RS485 Communications
- Supports the GENESIS II DDC (Digital Direct Controller), GENII MPC (Mid Points Controller) and MAXIM RS485 devices
- Provides remote network access via the internet or any computer on the network
- DHCP client for automatic IP address assignment
- Remotely Configurable via Web browser or using *ETHERMATE* software configuration utility
- All wire connections by removable terminals
- LED indication of network traffic and Ethernet connection status
- Fully compatible with iComm Communications server
- User Configurable BaudRate upto 115Kbps

## Application

The *Conv-E* functions as a network bridge between a PC Ethernet network and a RS485 Network. Data from the RS485 network is only retransmitted over Ethernet when a computer maintains a connection to the *Conv-E* via iComm. This reduces network traffic. When iComm is connected to *Conv-E* a green status LED illuminates.

iComm can create connections to multiple *Conv-E* devices on the same network using different TCP/IP addresses. The TCP/IP Address and Port number can be configured using the *ETHERMATE* software package. Serial Port parameters such as parity, stop bits and baud rate are also configured using the *ETHERMATE* configuration software.

Isolated RS485 circuitry prevents voltage irregularities on the comms cabling from damaging the computer, and reduces the likelihood of communication errors.

## Enclosure/Mounting

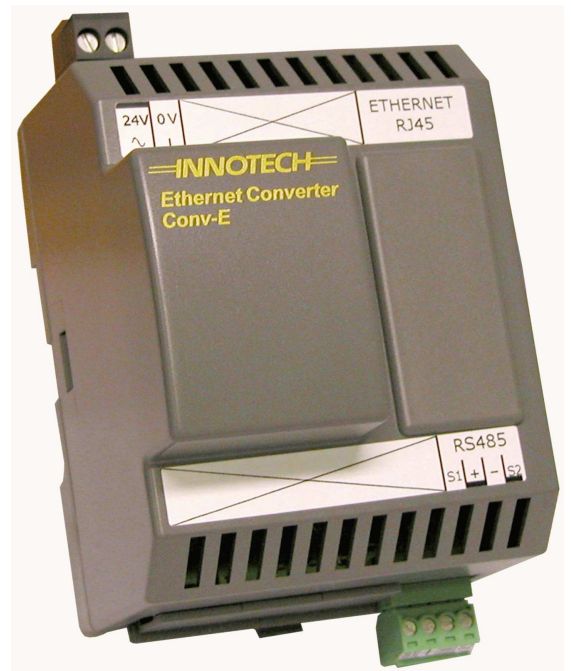
The Innotech *Conv-E* product is housed in a rectangular case suitable for DIN rail mounting. The housing is moulded from flame retardant plastics recognised by UL as UL 94-V0.

Colour: Grey

Dimensions: 71(w) x 115.40(h) x 58(d)

## Temperature Ratings

- Storage 0 to 50°C non-condensing.
- Operating 0 to 40°C non-condensing.



## Initial Setup

The *Conv-E* requires some initial setup according to the network configuration it is being installed onto. *ETHERMATE* is capable of configuring the *Conv-E* via several options using the Ethernet or RS485 interface. Note that an Innotech *Conv 232* will be required to configure the device if using the RS485 interface and a PC serial port.

1. The *Conv-E* will require an IP Address. The factory settings will enable the device to acquire an IP Address from a DHCP server. If there is no DHCP server on the network then the device will need a static IP address assigned. *ETHERMATE* can configure the IP address using the Ethernet interface or the RS485 interface. See the *ETHERMATE* on-line help for more information on IP address assignment

2. The Serial Port will need to be configured to match the RS485 network settings. The default is 9600bps, No parity, 8 data bits and 1 stop bit.

3. The Port number used for the Ethernet connection will need to be configured to match the setting used in *iComm*. The default is 20000.

See *ETHERMATE* Online Help for more information.

## Approvals

The Innotech *Conv-E* conforms to the requirements of the Australian/New Zealand standard AS/NZS CISPR 22:2002 Class A for purposes of C-Tick certification.

## Wiring

- DO NOT connect 240V AC to any terminals
- Ensure polarity of the power supply is correct. Centre pin is(+)
- The Comms cable must be organised as a bus topology (Daisy Chained). No “stubs” are allowed
- The cable used for RS485 Comms must be shielded single twisted pair with 120 ohms characteristic impedance and not exceed 45pF per metre capacitance between conductors.

For more information please refer to the Innotech Network Cabling Manual DS99.04.

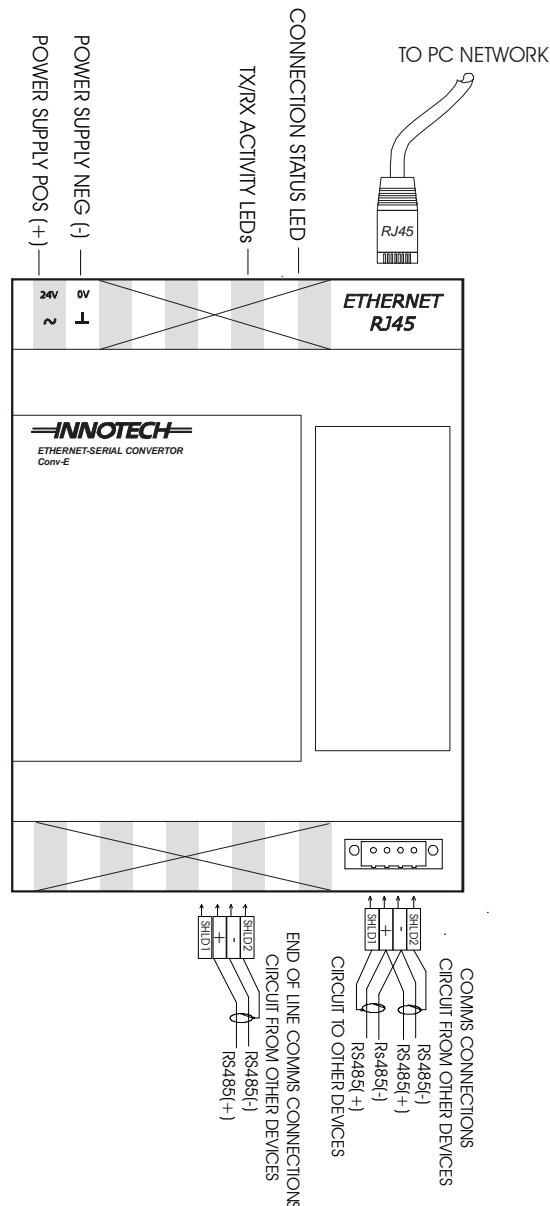
## Specifications

### Power Supply

- 12-24VAC  $\pm 10\%$  @ 50/60Hz  
Power Consumption: 2 VA
- 12-30VDC  $\pm 10\%$   
Power Consumption: 1 Watt

### RS485 COMMS Connection

- SHLD 1 = Shield from incoming Comms Cable
- + = RS 485 (+) signal
- = RS 485 (-) signal
- SHLD 2 = Shield from outgoing Comms Cable



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