

# Ethernet Networking

T1H-EBC <--->  
 T1H-EBC100 <--->

The T1H-EBC(100) modules provide a low-cost, high-performance Ethernet link between Terminator I/O and your PC-based control or WinPLC/DL205/DL405 CPUs using the H\*-ERM module for remote I/O.

These interface modules support industry standard 10Base-T or 100Base-T communications.

## Supported protocols

The Terminator T1H-EBC supports UDP/IP and IPX at 10 Mbps maximum. The T1H-EBC100 supports TCP/IP, UDP/IP, IPX and Modbus TCP at 100 Mbps maximum.

## Network masters

Network masters include the DL205, DL405 *Direct*LOGIC PLCs and WinPLCs using the Ethernet Remote Master module (ERM), and PCs using PC-based control software that includes embedded Ethernet I/O drivers.

## T1H-EBC as H\*-ERM slave

When using a *Direct*LOGIC CPU with an ERM module as the network master, the T1H-EBC(100) slave will provide faster analog I/O update times than a *Direct*LOGIC CPU system with a T1K-RSSS slave system. The ERM/EBC system can also support a much higher analog I/O count than the T1K-RSSS remote I/O system.

## Inexpensive cables and connecting devices

The Terminator EBC modules are made with industry standard RJ45 connections for easy networking. Off-the-shelf Ethernet hubs and repeaters make configuring a network a breeze.

## No DIP-switch settings

All addressing and setup features are configurable through the software configuration tool. All I/O data are passed into the EBC buffer and communicated as a block almost instantaneously to the host device.

- Save money on your Terminator I/O system when compared with competitive I/O
- Virtually unlimited number of I/O points (up to sixteen modules per EBC system)
- Deterministic I/O updates on dedicated networks
- Use off-the-shelf networking components to connect to your existing network
- Fast I/O updates of <1 ms per base
- On-board serial port for operator panel or ASCII devices

Specifications	T1H-EBC	T1H-EBC100
<b>Communications</b>	10Base-T Ethernet	100Base-T Ethernet
<b>Data Transfer Rate</b>	10 Mbps	10/100 Mbps
<b>Link Distance</b>	100 meters (328 ft.)	
<b>Ethernet Port</b>	RJ45	
<b>Ethernet Protocols</b>	UDP/IP, IPX	TCP/IP, UDP/IP, IPX, Modbus TCP
<b>Power Consumption</b>	350 mA	300 mA
<b>Manufacturer</b>	Host Automation Products, L.L.C.	
<b>RJ12 Serial Port</b> <sup>1</sup>	K-sequence, ASCII	K-sequence, ASCII, Modbus RTU

<sup>1</sup> At this time, the serial port is unavailable when these modules are used as slave devices to the H2-ERM or H4-ERM modules.

## Adding I/O modules

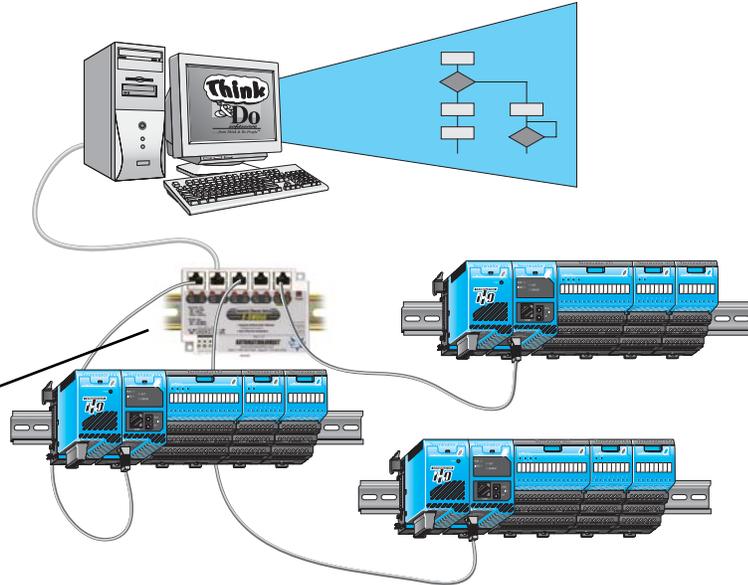
The T1H-EBC(100) supports the full lineup of Terminator I/O discrete and analog modules.

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## Off-the-shelf system solutions

You can purchase PC-based control software to connect to our T1H-EBC(100) Ethernet Base Controller. PC-based control packages are equipped with compatible I/O device drivers, program development tools, and run-time environments. See the PC-based Control section of this catalog for a single-source integrated PC-based control solution that ships with everything you need to make your PC into an industrial controller.

**E-SW05-U Ethernet Switch**  
(See the Communications Products section of this catalog for details).



Vendor	Product	Web Address
AutomationDirect	KEP Direct EBC I/O Server	<a href="http://www.automationdirect.com">www.automationdirect.com</a>
Phoenix Contact	Think and Do Live! Think and Do Studio	<a href="http://www.phoenixcon.com/software">www.phoenixcon.com/software</a>
KEPWare	KEPServerEX	<a href="http://www.kepware.com">www.kepware.com</a>
MDSI	Open CNC	<a href="http://www.mdsi2.com">www.mdsi2.com</a>

### READ I/O

```
int HEIReadIO
(
    HEIDevice *pDevice,
    Byte *pBuffer,
    WORD BuffSize
);
```

### WRITING I/O

```
int HEIWriteIO
(
    HEIDevice *pDevice,
    BYTE *pData,
    WORD SizeofData,
    BYTE *pReturnData,
    WORD *pSizeofReturnData
);
```

## Software developers

For programmers developing custom drivers for our I/O, we offer a free Ethernet Software Development Kit (SDK). The software interface libraries are provided for WIN32, WIN16, and DOS operating systems. The source code is available to developers under a non-disclosure agreement. Visit the technical support link at our Web site for more information.

