ET219 Ethernet Terminal

LOW-COST *NETWORK* DATA COLLECTION

Overview

The *ET219* Ethernet Terminal is a low cost data collection device that communicates with a software application program over a TCP/IP network. The operator interface consists of an alphanumeric display and a membrane keypad with additional input options available.

Theory of Operation

When the *ET219* is connected to a 10/100BaseT Ethernet network it functions similar to a "Telnet" terminal. The host software can send commands and displayable messages to the terminal via the network. User input from the keypad, optional bar-code, or magstripe reader is sent to the host software. To minimize network traffic the user input is transferred as complete strings instead of character by character. Strings are terminated by the "Enter" key and terminated with the ASCII <CR> & <LF> characters. The bar-code and mag-stripe input automatically includes the "Enter" function.

Terminal Emulation

The *ET219* terminal has two (2) operating modes: the "Virtual Terminal Command (VTC) mode and the ANSI emulation mode. The VTC mode provides a unique but simple syntax that eliminates the need to know all the particulars of the lower level ANSI protocol. The ANSI emulation mode is a subset of the standard ANSI terminal protocol that supports most of the standard display manipulation command set. The *ET219* includes the *DCNET* application program (Win9x/NT based) which adds out-of-the-box ethernet data collection capability.

Network Interface

The *ET219* terminal connects to an Ethernet LAN via a standard 10/100BaseT cable. From a network perspective it occupies a single "socket" at a specified TCP/IP address and port number. The host software communicates with the *ET219* by establishing a connection with the terminal and then sending and receiving ASCII text command strings.

Operator Interface

The *ET219* includes an LCD display and an alphanumeric function key array keyboard as the primary operator interface console. In, addition, the *ET219* terminal may include an optional bar-code scanner input, mag-stripe card reader input, or RFID reader input and an aux RS-232 port for connection of a serial input device. Optional digital inputs with counters (up to 4) and software controlled relay outputs (up to 4) provide machine control for an external device.

ET219 Features

Display

The *ET219* display utilizes a two (2) line by forty (40) column LCD character display which displays the 96 standard ASCII characters and 96 non-standard symbols in a 5 x 7 dot matrix font. Cursor position is identified by a blinking box and can be positioned under software control. Backlighting is available as an option for low light installations.

Keyboard

75 key hermetically sealed membrane keyboard with embossed graphics in a 6 x 12 array. Audible key-click for tactile feedback. Actuating force of 4-8 ounces and a rated life of 10MM cycles per switch. The entire 72-key array can be user configured with custom ascii codes to suit the application.

Input / Output Options

The *ET219* terminal is a member of the ET210 family of low-cost data collection computer terminals. It features small size, low power, Ethernet connectivity, and is ideally suited for industrial data collection applications. Several input/output options are available as follows:

Barcode Input

The barcode decoder input option allows one or two bar-code devices to be attached on the *ET219* terminal. Decoded input is treated just like keyboard entered data and can be configured to include an automatic Enter (<CR>) code. The *ET219* will automatically discriminate and decode Code 39, Code 128, Interleave 2/5, Codabar, and UPC/EAN symbologies. Available input devices include wands, slot readers, and wand emulating CCD or laser scanners. The *ET219* can be supplied with a visible or infrared slot reader as one of the bar-code input devices.

Mag-stripe Input

The mag-stripe decoder input option allows either a single or dual track magnetic card reader to be attached. Either single Track #1 or Track #2 reader can be decoded and the input is treated just like keyboard entered data. If a dual track reader is installed Track #1 will be decoded first and if it fails Track #2 will be decoded.

Relay Output

The *ET219* can be supplied with either two (dual) or four (quad) output relays that can be individually activated under software control. Each relay has a single "form A" contact rated at 10va (100vdc, 100ma.) maximum. Access to the contacts is via screw terminal blocks on the back of the unit.

Power Supply

The *ET219* is powered by a 12vdc (6va rating) power adapter that plugs directly into a 120vac receptacle. Typical power consumption is less than 10 watts. Optional input devices (laser scanners, card readers, etc.) can increase the power consumption slightly. Alternate power supplies can be used by connecting them via the *ET219* power jack.

Standard Features

- 10/100BaseT Ethernet Connectivity (TCP/IP).
- Bar code input interface for wand, laser, CCD or other compatible scanner.
- Standard RS-232 COM port, 9-pin AT connector.

Add-on Options

- Display Backlight
- Magnetic stripe card reader interface (Trk 2, Trk 1 optional)
- RFID Reader
- Touch-key Reader
- Contact inputs (4) with built-in counters
- Relay control outputs (2 or 4)
- Tilt bracket

Physical Specifications

Dimensions (width x height x depth)(mm)
   Table-top Model - 175 x 112 x 170mm
Weights
   1.2 Kg. (2.6 Lbs)
Power Consumption (does not include options such as backlight, modem, or bar code scanner, badge reader, etc.)
   Standard Unit - 12 Watts
   With Backlight Display: +35milliamps.
Operating Environment
   Temperature: 0C to 60C (32F to 120F)
   Humidity: 5% to 95% non-condensing
Storage Environment
   Temperature: 30C to 70C (-4F to 158F)
   Humidity: 5% to 95%