



Terminals

- RS232 terminal electronics for character LCD displays and keyboard encoder for all kinds of matrix keyboards up to 8x8 keys.
- Built-in power supply for 12 to 30V DC operation.
- Switchable 300mA @5V available for LED backlight.
- EEPROM to store character codes and communication parameters.
- Contrast voltage generation -2 to +5V.
- Fits 2x24 LCD in width and mounting holes. Supports mounting holes for other LCD modules as far as possible.
- Screw terminal connector for power supply.
- AT compatible 9pin D plug.

Use LCDTERM also as keyboard encoder without LCD module.

LCDTERM is the low budget entry into alphanumeric user interface: Add a character LCD module and a simple matrix keyboard to make an industrial terminal that operates on a serial line. It even has its own power supply to work on any DC voltage between 12 and 30V although 5V operation is possible, too.

LCDTERM can be configured to operate with almost any LCD module:

1x16, 1x24, 1x32, 1x40,
2x16, 2x24, 2x32 and 2x40.

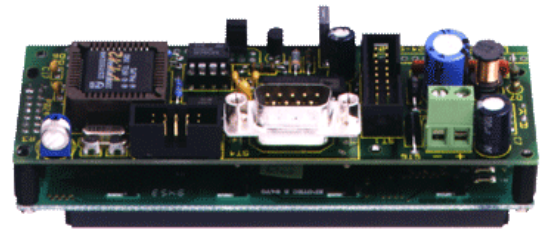
4x20 needs slightly different scrolling software. A separate software version is available for this display, although we recommend the use of LCDTERM20 that has exactly the size of a standard 4x20 module.

Configuration program

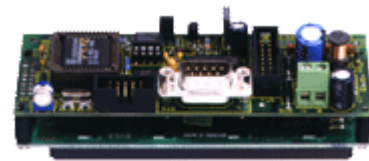
Configuration programs running under MS-Windows on a serial line allows to set:

- serial line parameters, baudrate and parity
- type of LCD module 1x16 to 2x40
- Matrixsize
- serial number
- keyboard mode
- keyboard layout

The selection is stored in EEPROM on LCDTERM. Changing the parameters requires to set a jumper. LCDTERM then changes to its default 9600 bit/s 8N2 operation.



Order codes:



PER-LCDTERM

81.30 € *

Module as described

PER-LCDTERM<X420 **5.11 € ***

Option software for 4x20 display

PER-LCDTERM<XAS **10.23 € ***

Assembly of separately bought [LCD-module](#) to LCDTERM plus 30cm flat cable to connect matrix keyboard.

* all prices in EUR ex works (+VAT/MwSt inside Germany)

(Click photos for a larger view)

Keyboard

Matrix keyboards, i.e. keyboards that use simple crosspoint switch wiring with matrix sizes up to 8x8 switches can be attached to LCDTERM regardless of their technology (even standard pushbutton momentary switches can be arranged in a matrix). The configuration program allows to assign a random ASCII character to each key. The keyboard can operate in standard mode or with auto-repeat function on all keys. For any number of keys a push/release mode can be set.

In push/release mode, a character is sent if the key is pressed and the same character with it's 8th bit set is sent if the key gets released. Main use of the push/release operation is teach-in of motion, where a motor needs to move as long as a key is pressed.

Serial line

LCDTERM uses RS232 to connect to the control computer (for other physical levels see LCDTERM20). It supports 8 bit communication with baudrates of 1200 to 19200 bit/s and selectable parity. There is a CTS hardware handshake and the reception of characters works under interrupt with a buffer for 9 characters.

Terminal emulation

LCDTERM uses ASCII control characters and escape sequences common to many office use terminals. It interprets backspace and CR, line and form feed, home and clear display. Added features are direct cursor positioning, clear to end of line/display, cursor size selection, status report and the selection of a german, international or japanese character set.

Power supply

Usually, an industrial terminal is not located immediately at the control computer but with a considerable cable length in between. Taking 5V from the computer to drive the display electronics results in a critical voltage drop over the line, especially if a backlight has to be powered. LCDTERM has its own DC/DC converter to operate on any DC voltage between 12 and 30V (including the common 24V industrial supply).

LED backlight supply and switching

The 0.5A DC/DC can spare up to 300mA to operate an LED backlight. LED backlights are now very common after EL has proved to fade very rapidly and the high voltage is not easily available. Unfortunately, large displays (8 or 12mm character size) need high backlight currents. LCDTERM20 is the choice for backlight consumption up to 900mA.

Usually backlit LEDs are specified with 4V or to operate at 5V with a limiting resistor. LCDTERM has a provision to reduce the voltage to about 4V by means of a series diode or to introduce a series resistor. If the LCD module is ordered together with the display, we even fit the necessary component for you. Backlight can be switched on and off by software to save power or to alert a user by flashing the backlight.

Technical data:

Size: 44x118mm, Current consumption with 24V input 12mA, with direct 5V input 40mA. Connectors needed: D9F, 16p header LCD, 20p header keyboard.

