



# ME762A-M/F

## INTRODUCTION:

The Mini Driver is a non-powered device that lets you connect asynchronous terminals to computers in local applications beyond the 50-foot RS-232 specification. This unit will accommodate applications up to 6.5 mi. (10.5 km), depending on your operating speed and wire gauge.

The Mini Driver is designed for use on premises (within a building, between buildings, ect.). This unit is coupled to the phone line through isolation transformers which, in conjunction with electronic circuitry, protect against AC or DC overvoltages. The transformers are rated at over 1,500 V RMS, making them suitable for connection to local circuits provided by most national telephone administrations (P.T.T.s).

The Mini Driver has an internal switch to select DTE or DCE operation. This allows the line driver to operate as a DTE when connected to another DCE such as a multiplexor port, or as a DCE when connected to a DTE such as a terminal. In either mode, you'll be able to make our connections using a straight-through cable rather than special cross-pinned cable.

The Mini Driver operates without connection to the main supply by drawing ultra low power from the standard EIA RS-232C/CCITT V.24 data and control signal voltages. The driver will even operate if Transmit Data is the only lead connected (without the terminal sending Request to Send or Data Terminal Ready signals). Both positive and negative signals are generated in compliance with EIA RS-232C/CCITT V.24 standards, regardless of the status of the Transmit Data signal (constantly high or constantly low).

The low transmit level minimizes cross-talk onto adjacent circuits within the same cable. Data is transmitted and received at a balanced impedance, ensuring excellent immunity to circuit noise.

## INSTALLATION:

Follow these simple steps to install your Mini Driver.

- Separate the two halves of the plastic cover by pressing the marked places on the sides of the unit.
- Connect the 4-wire telephone line to the unit's 5-screw terminal block:
  - Connect the transmit pair to "XMIT" and the receive pair to "RCV". To maintain polarity, make sure that the +XMIT pair on the local driver is connected to the +RCV pair on the remote driver. The -XMIT pair on the local driver must be connected to the -RCV pair on the remote driver.
  - A ground is provided to connect the cable shield.
- Set the DCE/DTE switch to the required position:  
 Select the DCE position if you're connecting the Mini Driver to a DTE (terminal, host).  
 Select the DTE position if your Mini Driver is being connected to a DCE such as a multiplexor.  
 In either configuration, you'll be able to use straight-pinned DB25 cable. The table to the left lists the pinning for the Mini Driver in the DCE and DTE positions.
- To close the unit, simply press the two halves of the cover together.

## SPECIFICATIONS:

Transmission Mode: Asynchronous, full- or half-duplex

Transmission Line: 4-wire unconditioned telephone line (two twisted pairs) point-to-point

Data Rates: Up to 19,200 bps

Transmission Level: -6 dBm

Transmission Controls: DSR and DCD turn on immediately after the terminal raises DTR; CTS turns on immediately after the terminal raises RTS.

Transmission Range: 6.5 miles (10.5 km) on 24 AWG wire or speeds up to 19,200 bps

Terminal Interface: EIA RS-232C/CCITT V.24, integral 25-pin connector, choice of male or female.

Telephone Line Interface: 5-screw (4-wire and ground) connector block with cable strain relief inside plastic cover.

Power: None required, uses ultra-low power from the EIA RS-232C/CCITT V.24 data and control signals. In DCE mode; power is obtained from pins 4 or 20. In DTE mode; power is obtained from pins 6 or 8.

SPEED	Wire Gauge		
	19-AWG	24-AWG	26-AWG
1200 bps	6.5 mi (10.5 km)	5.0 mi (8.0 km)	3.5 mi (5.6 km)
2400 bps	6.5 mi (10.5 km)	5.0 mi (8.0 km)	3.5 mi (5.6 km)
4800 bps	6.5 mi (10.5 km)	5.0 mi (8.0 km)	3.5 mi (5.6 km)
9600 bps	5.0 mi (8.0 km)	4.0 mi (6.4 km)	2.5 mi (4.0 km)
19,200 bps	2.0 mi (3.2 km)	1.5 mi (2.5 km)	1.0 mi (1.6 km)

DTE POSITION		DCE POSITION	
TD 2	(Output)	TD 2	(Input)
RD 3	(Input)	RD 3	(Output)
RTS 4		RTS 4	(+V)
CTS 5		CTS 5	
DSR 6	(+V)	DSR 6	
DCD 8	(+V)	DCD 8	
DTR 20		DTR 20	(+V)