ME764A-M/FSP with (Surge Protection)

DB25M/F CONNECTOR

DCE ▌▌▌ DTE

RTS/DCD Control Switch

+ RCV - G + XMT -

BLACK BOX

ME764A-M/FSP Mini Driver MPI

SPECIFICATIONS:

<u>Protocol:</u> Asynchronous.

<u>Speed:</u> Up to 19,200 bps

<u>Range:</u> Up to 6 miles (9.7 km)

<u>Serial Interface:</u> DB25, male or female (DTE/DCE switchable).

<u>Surge Protection:</u> 600 W power dissipation at 1 ms and response time of 1 picosecond.

<u>Operation:</u> 4-wire, full- or half-duplex, DCE/DTE switch-selectable.

<u>Connectors:</u> (1) DB25 male or female; (1) 5-screw terminal block.

<u>Power:</u> No power required; uses ultra-low power (at least 5 volts required) from EIA data and control signals: Pins 3,5,6,8 and 9 in DTE mode; Pins 2,4,9 and 20 in DCE mode; 3 to 5 ma @ 10 volts.

DATA RATE (bps)	Distance Table in miles (km)		
	WIRE GAUGE		
	19 AWG	24 AWG	26 AWG
19,200	6.2 mi (10 km)	3.7 mi (6 km)	1.2 mi (1.9 km)
9,600	7.5 mi (12.1 km)	4.9 mi (7.9 km)	2.5 mi (4 km)
4,800	8.7 mi (14 km)	5.6 mi (9 km)	3.7 mi (6 km)
2,400	11.8 mi (19 km)	8 mi (12.9 km)	4.9 mi (7.9 km)
1,200	17 mi (27.4 km)	11.8 mi (19 km)	8 mi (12.9 km)

DESCRIPTION:

The Mini Driver MPI was designed for point-to-point or multi-point applications that require control signals for hardware handshaking. In a multi-point environment, the master transmits data in parallel to up to 10 addressable terminals. The terminals contend for the main channel by activating RTS (pin 4)

Built-in transformers eliminate much of the noise that occurs in commercial buildings. These transformers also eliminate ground loops caused by differences in reference ground, so you can use the Drivers to connect devices in separate buildings. The Driver uses the latest in bi-directional, clamping, transient suppressers to protect itself and connected equipment from harmful transient surges. The units can dissipate 600 W per wire at 1 ms. Response times are typically 1 picosecond from 0 to the nominal breakdown level of 6.8 volts.

CONFIGURATION:

The locations of the switches and line connectors are shown in the diagram to the left.

DTE/DCE Switch:

The Driver can be used with computer/terminals (DTE) or with modems/multiplexors (DCE). When used with a DTE, the Driver should be set to DCE (factory setting). When used with a DCE, the setting should be DTE.

Carrier Control Switches:

The RTS/DCD control strap setting on the Driver determines how its transmitter (carrier) is activated. When this strap (jumper) is off (removed from the pins) the Driver transmitter is constantly ON. When the strap (jumper) is on, the transmitter is enabled by activating RTS (Pin 4 or Pin 8 as described in the table below).

4-Wire Connections:

XMT+ ———————	RCV+
XMT- ———————	RCV-
RCV+ ———————	XMT+
RCV- ———————	XMT-
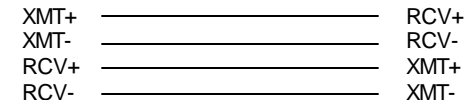
DCE/DTE SWITCH SETTING	DCE	DTE
RTS/DCD STRAP ON	RTS Activated	DCD Activated
RTS/DCD STRAP OFF	Carrier Constantly High	Carrier Constantly High

4-wire Full Duplex

DB25M/F CONNECTOR

+ RCV - G + XMT -
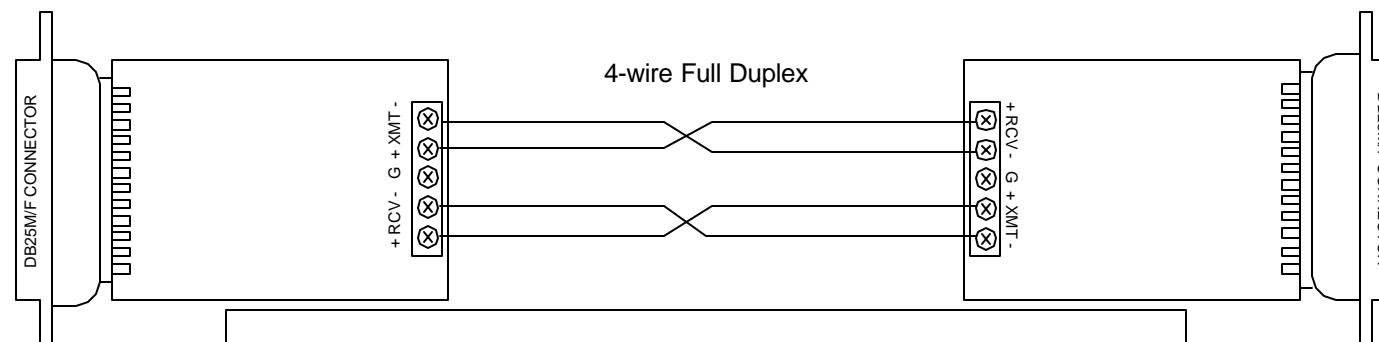
If there is a shield around the telephone cable, it may be connected to "G" on the terminal block. We recommend connecting the shield at the computer end only to avoid ground loops. A ground wire is not necessary to properly operate the Driver.