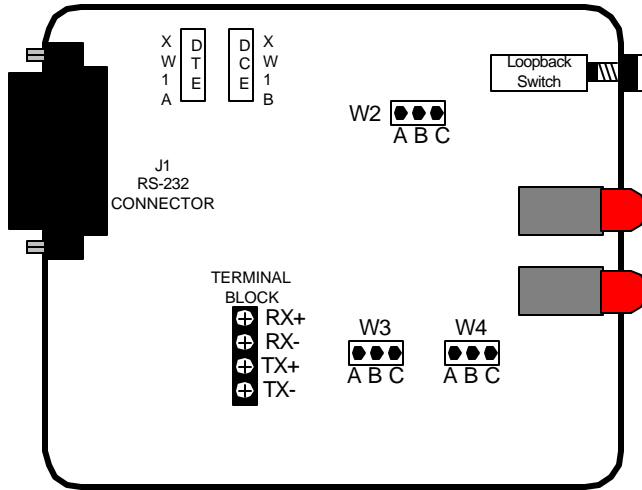


ME802A



SPECIFICATIONS:

Interface: RS-232

Protocol: Asynchronous

Operation: 4-wire, Full Duplex, point-to-point

Line Interface: Balanced current loop; Receive lines are protected through optical isolators rated at 2500 volts.

Connectors: (1) DB25 Female connector; (1) 4-screw terminal block.

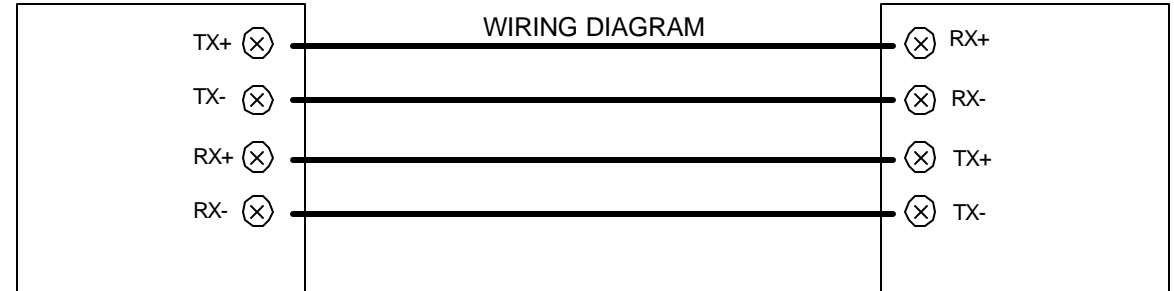
Indicators: (2); (1) TD and (1) RD

Diagnostics: Loopbacks provided by a front-panel switch: Analog loopback on a 4-wire loop and digital loopback on equipment interface (EIA-232).

Status Indication: Two bi-color LED's indicate the status of the transmitter and receiver. A green light indicates a "low" logic level (-3 to -15V) on the 232 interface; a red light indicates a "high" logic level (+3 to +15V).

Power: Power is supplied by a wall-mounted power transformer. Primary 115VAC +/- 10%, 60 Hz, 5 watts. Secondary: 17 VAC, 700 ma External Power Supply Part # = PS008

DATA RATE	Miles w/ 24 awg
115.2 Kbps	1.5
56 Kbps	1.7
19.2 Kbps	2
2400 bps	4



DTE/DCE SHUNT JUMPER:

XW1A and XW1B are used to select DTE/DCE operation. This eliminates the need to use a crossover cable when connecting to your data-communications equipment. If you connect the High Speed SHM-B Async to your equipment using a straight-thru cable, then XW1 must be set to the opposite of your device's configuration. For example, if your device is configured as DTE, select DCE via XW1B

FLOW CONTROL: HARDWARE HANDSHAKING; W2 IN THE A-B ENABLE POSITION:

When the High Speed SHM-B Async is set for DCE operation (XW1B); DTR or RTS asserted true(high) from the attached RS-232 device activates the units Async driver circuit. When the unit is set for DTE operation, CTS or DSR from the attached RS-232 device activates the driver circuit of the unit. The High Speed SHM-B at the remote end of the line will sense this and raise its CD lead (pin 8) when it is configured as a DCE device.

If the remote unit is configured as a DTE device, it raises its DTR lead (pin 20) when it senses an active driver circuit on the unit at the other end of the line.

X-on/X-off MODE (JUMPER W2 IN THE B-C DISABLED POSITION):

If X-on/X-off characters are used for handshaking control, rather than hardware logic levels, move the jumper W2 to the B-C or disabled position.

Typically, units that use software X-on/X-off flow control do not want RTS to affect DCD on the remote unit. Moving jumper W2 to the B-C position disables the RTS/DCD relationship. The only thing that will force DCD low with the jumper in the disabled position, is the absence of power at the either local or remote High Speed SHM-B units, or a broken twisted-pair wire.

INTRODUCTION:

The High Speed (SHM-B ASYNC) is an asynchronous full-duplex 4-wire line driver/receiver which allows two RS-232 devices to communicate at distances of up to 4 miles or at data speeds of up to 115.2 Kbps. In addition to the transmitter and receiver circuits, the SHM-B Async includes RS-232 control line interfaces, status monitor LED's, and a loopback switch. The SHM-B is available as a standalone version and a rackmount version.

The High Speed SHM-B is designed to operate over a 4-wire metallic circuit. Optimum performance is obtained with twisted-pair cable (we recommend Level 4 or Level 5 UTP). Most types of twisted-pair cable may be used, often with little or no performance degradation.

The High Speed SHM-B Async is designed for maximum operator safety. There are no voltages greater than +/- 9VDC or 17 VAC present on the circuit board of the unit or in the rack enclosure. The Receive lines are protected from potential ground differences through optical isolators rated at 2500 volts.

INSTALLATION:

Four-Wire Connections: Connect pairs of modems using the terminal block.

a.) Terminal Block:

Refer to wiring diagram above to make proper connections between the two SHM-B units using the terminal block

ME800A COMPATIBILITY:

The High Speed SHM-B Async can be configured to operate properly with the SHM-B Async units. Jumpers W3 and W4 when set in the A-B positions allows the High Speed SHM-B Async to operate at maximum speeds and distances. When jumpers W3 and W4 are set in the B-C positions, the output signal of the High Speed SHM-B Async is reduced to be compatible with the ME800A SHM-B Async. If the jumpers W3 and W4 are not placed in the B-C position and an ME800A unit is attached, the receive circuitry on the ME800A may be damaged.