



# MD940A-FSM

## SPECIFICATIONS:

**Power:** 115 VAC, 60 Hz, 65mA

**Interface:** EIA RS-232 with switch-selectable DTE/DCE; optical fiber interface.

**Connectors:** (1) DB25 female, (2) SMA type fiber optics.

**Data Rate:** 76.8 Kbps via 100 micron-core cable

**Transmission Distance:** Up to 3.5 Km via 100 micron-core cable with different range selections to optimize specific installations.

**Switches:** DCE/DTE (toggle)

## DESCRIPTION:

The Fiber Driver is an asynchronous, bi-directional data converter. The fiber driver changes standard EIA RS232 signals into light pulses for high speed transmission via fiber optic cable between two asynchronous RS232 devices.

At the remote end of the transmission, a second (remote) Fiber Driver is used to convert the optic signals back to RS232 signals. (The Fiber Drivers should be used in pairs.)

**The Fiber Driver uses XON/XOFF flow control.**

## INSTALLATION:

1. Before connecting the optic fiber driver, remove the protective dust caps from the tips of the connectors; do not touch the ends of the connectors with your fingers. Save the dust caps for future use.
2. Wipe clean the ends of the connectors with a soft cloth or lint free lens tissue dampened in alcohol (Ethanol). Make certain they're clean before attaching the cable to the connectors.
3. Find the serial port (the RS232 port) on the local device.
4. Determine whether the device is data communications equipment (DCE) or data terminal equipment (DTE). Refer to the manufacturer's instruction manual to determine DTE and DCE configuration.
5. **Select the DTE/DCE toggle switch on the driver to the same setting as the host device.**
6. Repeat the procedure for the remote device.
7. Install fiber optic cable between the two Fiber Drivers. Fiber optic cable is immune to electrical interference and is ideal to use in harsh environments (such as outdoor cable runs, manufacturing plants, etc.). You must be careful to avoid damaging the cable's glass-fiber core. Never create kinks or folds in the cable, avoid bending the cable at sharp angles, and do not stretch or place excessive tension on the cable.
8. Install the fiber optic cable so that the transmit port on the local driver is connected to the receive port of the remote driver. Connect the receive port of the local driver to the transmit port of the remote driver. Use coded duplex fiber optic cable to simplify installation.
9. Install the power supply units for each Driver. Plug the power cord into a 115 VAC outlet. Then insert the "mini-phone" plugs into the power connector on the Driver.

Jumper	Function	USE
W1	Pull up to +5VDC	Install to enable pin 6 of the RS232 connector
W2	High-speed filter	Install when operating at high data rates (greater than 19.2 Kbps)
W3	Range Select*	A-short range B-medium range C-long range

\*Range selection is dependent upon the size of the fiber optic cable used and the distance data is transmitted. Select the shortest range which accurately passes data.