

## FSK MODEM for Allen-Bradley SLC 500

One slot in A-B Model 1746 I/O chassis  
Data communications for remote PLC  
Bell and CCITT compatible

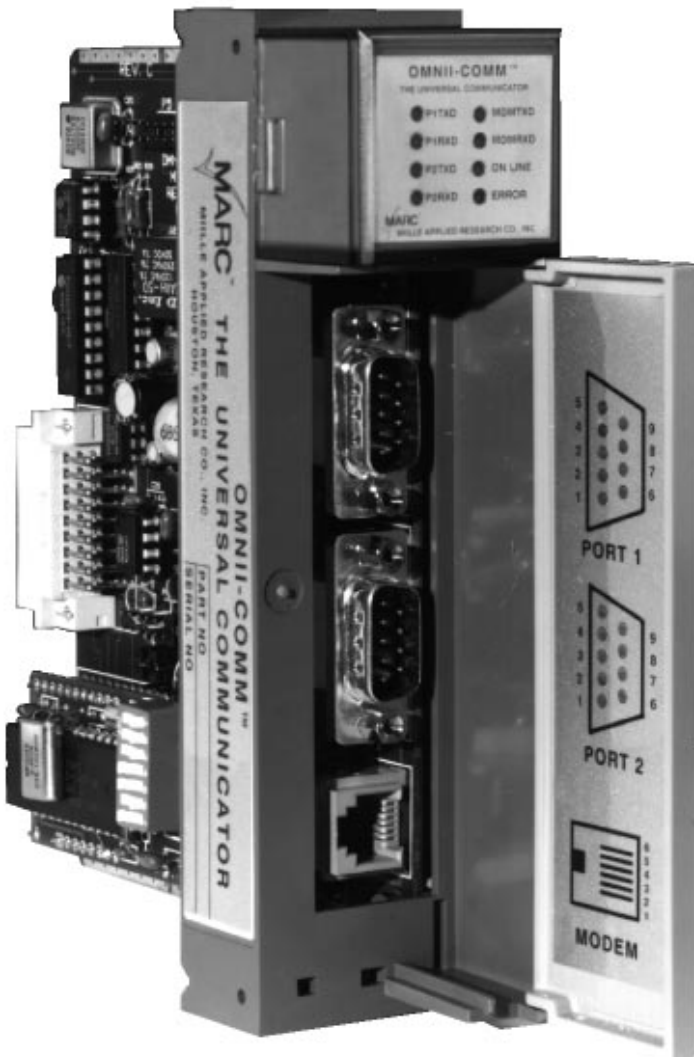
- Switch-selectable mode & transmit levels
- Push-to-Talk contact output for radios
- Can be used on leased telephone lines, twisted pairs or radios
- Low power
- Transient protection on all phone lines

The MARC™ Model 166-101 is a FSK modem which plugs into one slot of an Allen-Bradley SLC 500 PLC (Programmable Logic Controller) and provides data communications with other Bell and CCITT compatible modems at speeds up to 1800 baud.

The modem provides reliable long-distance data communication on dedicated telephone channels, radio channels or local twisted-pair cables. Compatibility is assured with other modems using any of seventeen standard operating modes at speeds up to 1800 baud. The modem is completely compatible with the widely used Bell 202 standard.

The modem operating mode and transmit signal levels are switch selectable by the user. A PC or terminal is not required to configure the modem in most cases. Some of the modem settings can be altered using a PC with a terminal emulation software package such as Procom installed. The user can define the modem "on delay" and "off delay" and set the carrier to either On or Controlled operation from the configuration port.

Once configured, modem operation is fully automatic requiring no external inputs or setup messages for operation. Configuration is automatic when power is first applied, based on the option switch selections and data stored in EEPROM memory,



# FSK MODEM FOR ALLEN-BRADLEY SLC 500 PLCs

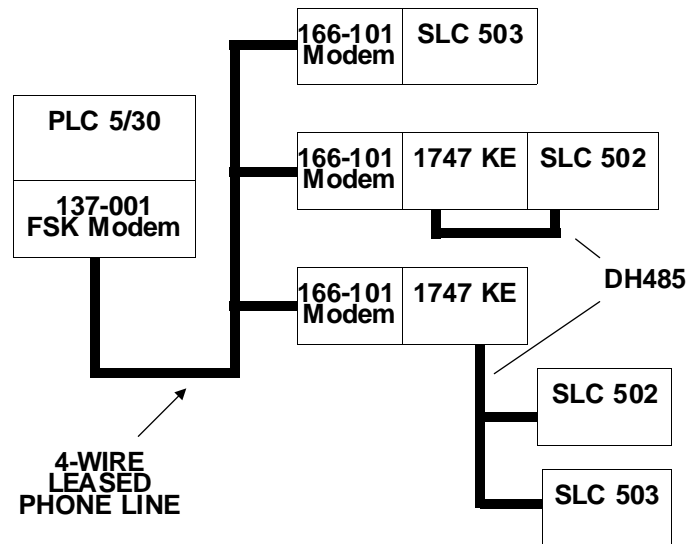
# FSK Modem Model 166-101

A Dial-up modem for standard telephone lines is also available for use with the SLC 500 PLC. The MARC 166-100 Dial-up Modem should be used when standard dial-up telephone lines are used for communication.

This modem can also be equipped with the MARC 166-200 OMNII-COMM™ universal communications module. The OMNII-COMM™ module is a powerful microprocessor based unit that is used to provide protocol conversion, remote polling, historical data storage and many other functions. Please see the 166-200 Product Data Sheet for additional details.

Standard cable assemblies for connecting the 166-101 modem to many types of devices are available. Contact the factory for a current list.

MARC also manufactures a complete line of protocol conversion modules (127-005 Comm-Troller™), polling masters (166-001 Comm-Master™ and modems for the Allen-Bradley PLC 2 and PLC 5 families of PLCs. Similar modules are available for PLCs from other manufacturers as well.



**TYPICAL APPLICATION**

## Specifications

### Physical:

Standard Allen-Bradley SLC 500 module size (1.375"W x 5.75"H x 5.125"D) with A-B SLC style mounting panel.

1 pound, 14 ounces

### Operating Environment:

0° to 60° Celsius

10% to 90% relative humidity (non-condensing)

### Power Requirements:

Nominal 300mA @ 5 VDC from PLC backplane when active, cut to < 100mA when inactive

### LED Indicators (8):

Provides status of the following signals: P1TXD, P1RXD, P2TXD, P2RXD, Modem RXD, Modem TXD, On Line, and Error

### Operating Modes and Speeds:

Switch Selectable CCITT V.23, Bell 202, V.21 and Bell 103 Asynchronous to 1800 baud on conditioned lines; up to 1200 baud on unconditioned lines

### Serial Ports:

#### Port 1

9-pin "D" connector (male) for serial asynchronous data link to unit served (such as communications interface module for Allen-Bradley PLC). Select RS-232, RS-422 or RS-485 operation and DCE/DTE pinouts with jumpers inside modem case. Also used for modem configuration.

#### Port 2

9-pin "D" connector (male) reserved for use when the modem is equipped with the optional communications adapter unit (MARC Part # 166-200)

### Modem Connection

Standard RJ11 Telephone line jack. Pins 2 and 5 = receive data, Pins 3 and 4 = transmit data.

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