

# PROGRAMMABLE LOGIC CONTROLLER (PLC)

**MICRO-COMM**

## MODEL M1500

**FULLY PROGRAMMABLE WITH PLUG-IN MEMORY MODULE**

**MICRO-COMM, MODBUS RTU AND ALLEN-BRADLEY DF1 PROTOCOLS**

**OPTIONAL FRONT PANEL DISPLAY & EXPANDABLE I/O**

**RADIO, PHONE LINE, & FIBER OPTIC COMMUNICATIONS**

**SIMULTANEOUS RTU-RTU & CTU-RTU COMMUNICATIONS**

**PLUG-IN TERMINAL BLOCKS**

The M1500 PLC is a reliable, full-featured Programmable Logic Controller. It is a "smart" unit providing both programmability and interchangeability through a plug-in memory module. As an integrated component of a Supervisory Control and Data Acquisition System (SCADA), the M1500 provides input and output (I/O) monitoring and control with simultaneous "distributed" (RTU to RTU) and "central" (CTU to RTU) type control operations. Its universal communications interface can provide robust control and data transfer via radio, dedicated line, phone line, and fiber optic communication media.

### APPLICATIONS

#### SCADA Systems:

- Water Distribution Control and Management
- Waste Water Control and Monitoring
- Golf Course Irrigation
- Agricultural Irrigation
- Gas and Oil Monitoring
- Electrical Distribution Monitoring

#### Local Control:

- Water Booster Pump Stations
- Sewage Lift Stations
- Constant and Variable Speed Pump Stations
- Metering Stations
- Water and Waste Water Treatment Plants



### FEATURES

#### I/O

- 4 Form C Relay Outputs
- 4 Open Collector Outputs
- 8 Optically Isolated Discrete Inputs (2 are also High Speed Pulse Inputs)
- 4 Analog Inputs, 0-5V or 0-20mA
- 2 Additional On-Board Sensor Analog Inputs  
Box Temperature, System Voltage
- 2 Analog Outputs, 0-20mA

#### Communications

- COM1, Radio Port  
25pin Sub-D Male, RS-232 and RF signals
- COM2, Front Panel Display, Programming  
9pin Sub-D Male RS-232 w/flow control lines for optional 2nd data radio
- COM3, RS-485, Expansion I/O
- Plug In RF MODEM  
0-300, 600, 1200 BAUD

#### Power Source and Supplies

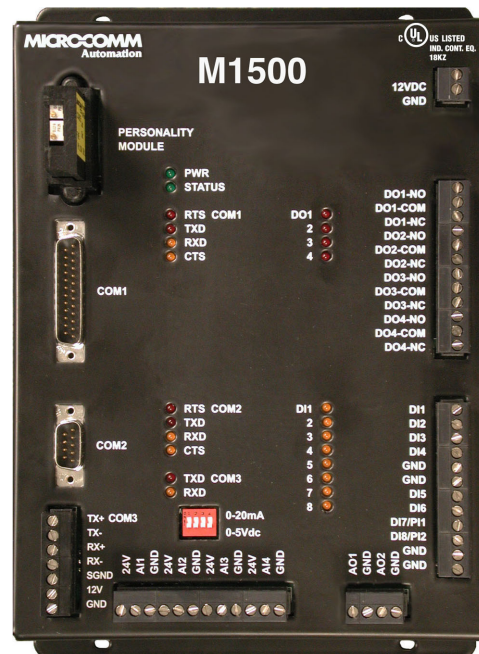
- 12 VDC Power Input
- 24VDC @ 200mA  
Sensor Excitation power supply

**Micro-Comm** Automation has been providing process control solutions for more than 30 years.

Call us at **(913) 390-4500** to place your order or to speak to a sales and service representative. Or, visit us online at [www.micro-comm-inc.com](http://www.micro-comm-inc.com)

## I/O

- 4 Form C Relay Outputs, 10A @ 250VAC (10A @ 30VDC Resistive)  
Relay contact to coil isolation 4000Vrms
- 4 Open Collector Outputs, 100mA @ 12VDC (COM1 pins)
- 8 Optically Isolated Discrete Inputs, Dry Contact or Pulse Inputs  
Discrete Input optical isolation 5300Vrms  
2 High Speed Pulse Inputs (discrete inputs 7 and 8)  
0-1kHz, 50% duty cycle, contact closure or open collector to GND  
6 Low Speed pulse inputs (discrete inputs 1-6)  
0-50Hz, 50% duty cycle, contact closure or open collector to GND
- 4 Analog Inputs, 12bit, 0-5V or 0-20mA, 0.1% accuracy, 0.001%/degC temp. coefficient, +/- 24V over voltage
- 2 Additional On-Board Sensor Analog Inputs  
Box Temperature, 0-150°F  
System Voltage, 0-25.5V
- 2 Analog Outputs, 0-20mA, 2.5% accuracy  
900 ohm maximum loop resistance



## CPU AND MEMORY

- 32-bit MCU running 16MHz
- 1MB FLASH, Application Program
- 512K RAM, Data
- 1MB Serial FLASH, Configuration

## COMMUNICATIONS

- COM1, Radio Port  
DB25M, RS-232 and RF signals
- COM2, Front Panel Display, Programming  
DB9M RS-232 w/flow control lines
- COM3, RS-485 4 wire, 110–19200 BAUD
- Plug In RF MODEM  
FSK 0-300, 600, 1200 BAUD

## POWER SOURCE AND SUPPLIES

- 10.5-15 VDC Power Input, 10A
- 24VDC @ 100mA each output, 200mA total  
Sensor Excitation power supply
- COM1 (pins 9,10,20) 4A
- COM2 (pin 4) 2.5A
- COM3 (12V) 2.5A

## DIMENSIONS

- Height 9.75"
- Width 6.85"
- Depth 3.35" (with personality module)
- Weight 2.3 lb

## ORDER INFORMATION:

**L51-XXXX**

### Modem:

- 0 - none (110-19200 baud RS-232)
- L17 - 0-300 baud radio modem
- L17A - 0-600 baud radio modem
- L17B - 1200 baud radio modem