



The MARC™ Comm-Troller™ is an intelligent communication controller which provides enhanced communications capabilities for Allen-Bradley Programmable Logic Controllers (PLCs). The Comm-Troller™ occupies a single slot in a standard A-B 1771 I/O chassis connecting only to the +5V power rail of the chassis. The module communicates serially with the Allen-Bradley PLC (or a network of PLCs on a Data Highway) using a standard Allen-Bradley RS232 interface module. The Comm-Troller™ can also be connected directly to the RS232 port located on the front of new PLC-5 processors.

The Comm-Troller™ module contains two independent microprocessor subsystems, each with their own memory and I/O circuits. The two microprocessors are joined with a dual-ported memory for sharing of data.

Typically one of the microprocessors is used to continuously collect data from the PLC(s) and place it in the dual-ported memory. The second microprocessor is used to emulate the host's communication protocol. A SCADA host request for data is instantly filled using data already present in the dual-ported memory of the Comm-Troller.

All communication parameters such as port baud rates, number of data bits, etc. are configured from data tables residing in the PLC and downloaded to the Comm-Troller upon initialization. The tables are also used to completely define the size, quantity and location of all data in the PLC that the Comm-Troller will access. The user can easily modify the tables when required using standard PLC programming tools.

## Specifications

### Physical:

Standard Allen-Bradley module size (1.1"W x 10"H x 5.75"D) with A-B style metal shroud  
2 pounds, 5 ounces

### Power Requirements:

Nominal 800ma @ 5 VDC from PLC backplane  
1.5 A maximum

### LED Indicators (7):

Provide status of the following signals: P1 RECV, P1 XMIT, P2 RECV, P2 XMIT, P3 RECV, P3 XMIT and ACTIVE

### Protocols Supported (partial list)

Teledyne/Control Applications (CA) both standard and Report by Exception  
SCI RDACS II  
MODBUS both RTU and ASCII options  
Systronics MICROMOTE  
TRW2000  
Applied Automation OPTROL 3600  
AMOCAMS  
Leeds & Northrup CONITEL 2020  
Texas Instruments TIWAY  
TEJAS Systems 3 and 5  
Custom protocol development available  
Contact the factory for pricing

### I/O Ports:

2 Asynchronous Serial Data Ports; 300 to 9600 baud  
1 Universal Serial Data Port (Synchronous or asynchronous); 300 to 2400 baud.

All ports are RS232 standard; RS422 and RS485 operation is available as an option

All ports are equipped with modem control lines RTS, CTS, DCD, DTR and DSR

### Serial Port Connections:

**Port P1:** 15-pin "D" connector (DE15S) for serial asynchronous data link to host computer. This port is typically used when emulating asynchronous byte oriented protocols. Baud rate, number of data bits, parity and number of stop bits are selected by setup tables in the PLC.

**Port P2:** 15-pin "D" connector (DE15S) for serial asynchronous data link to Allen-Bradley PLC. Uses Allen-Bradley DF1 Full Duplex protocol operating at 9600 baud, 8 data bits and no parity with CRC error checking

**Port P3:** 15-pin "D" connector (DE15S) for serial synchronous connection to host computer. This port is typically used when emulating synchronous or iso-synchronous communications protocols. Baud rate and other communications parameters are selected by setup tables in the PLC.

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