RMC Modbus Plus

Fieldbus Communications for RMC100 Motion Controllers

Modbus Plus™ is Schneider Electric's proprietary network designed for industrial control applications. However, a variety of third-party vendors build Modbus Plus devices. The network enables programmable controllers to communicate with remote devices such as the RMC motion controller.

Modbus Plus allows up to 32 devices to be connected directly to a network cable up to 1500 feet in length. Repeater devices are available to extend the network in both distance and device count.

With its high data rate of 1Mbaud, Modbus Plus is excellent for transferring position, parameter, command, and graphing data between the programmable controller and the RMC.

Refer to other RMC data sheets and the RMCWin online help for more information. Download RMCWin from Delta's web page at **www.deltamotion.com**.

Applications

- Presses
- Injection/RIM/blow molding
- Packaging equipment
- Indexing/transfer lines
- Edgers/headrigs/veneer lathes
- Pinch rollers/winders/wrappers
- Casting/forging
- Palletizers/stackers
- Flying cutoff/curve sawing
- Cyclic testing
- Robotics/animatronics
- Pneumatic press rolls
- Tube bending/forming

RMC Modbus Plus Overview

Modbus Plus masters can access all of the RMC's 64K, 16-bit holding registers. Up to 100 of these registers can be read from or written to the RMC in a single operation. These registers make the following information available:

- Axis status registers
- Axis command registers
- Axis parameters
- Discrete I/O status registers
- Event Step Table
- Input to Event Table
- Global Data Map
- Axis graphs

Modbus Plus Global Data

In addition to using read and write operations to control the RMC, the Modbus Plus Global Data feature may be used to automatically update up to 32 words of data in the master controller. The RMCWin configuration software allows these words to be mapped to any status information in the RMC module. This is ideal for keeping the master controller up-to-date with the current RMC status.

Modbus Plus Masters

The following platforms either support Modbus Plus or can have Modbus Plus added to them:

- **Allen-Bradley 1746 (SLC 5/02 or later)**
  ProSoft Technology, Inc.
  (www.psft.com)
  Part: 3350-MBP
- **Allen-Bradley 1771 (PLC 2, 3, or 5)**
  ProSoft Technology, Inc.
  (www.psft.com)
  Part: 3300-MBP
- **Modicon® PLCs**
  Many solutions are available from Schneider Electric
  (www.modicon.com)
- **PC (ISA)**
  Schneider Electric
  (www.modicon.com)
  Part: SA85
- **PC (PCI)**
  Applicom
  (www.applicom-int.com)
  Part: PCI2000MBP
- **PC (ISA)**
  Grid Connect, Inc.
  (www.gridconnect.com)
  Part: CIF104-MBP

DELTA COMPUTER SYSTEMS, INC.

RMC Modbus Plus

Specifications

Modbus Plus Interface	Data Rate	1Mbaud
	RMC Holding Registers	64K 16-bit registers
	RMC Global Data Registers	32 user-configurable 16-bit registers
	Isolation	1000VAC
	Valid Node Addresses	1 to 64 (set using RMCWin software)
Connector	Modbus Plus Connector	Standard Modbus Plus DB-9S
Environment	Operating temperature	+32 to +140 °F (0 to +60 °C)
	Storage temperature	-40 to +185 °F (-40 to +85 °C)
	Agency compliance	CE, UL, CUL, ModConnect® Certified

Ordering Information

Any combination of transducers supported by the RMC is available with the Modbus Plus communications interface. Append **-MB+** to the part number to indicate Modbus Plus, as shown in this example:

- **RMC100-M1-MB+**

Company Profile

Delta Computer Systems, Inc. manufactures motion controllers, color sensors/sorters, and other industrial controls providing high-performance automation solutions to a wide range of industries.

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