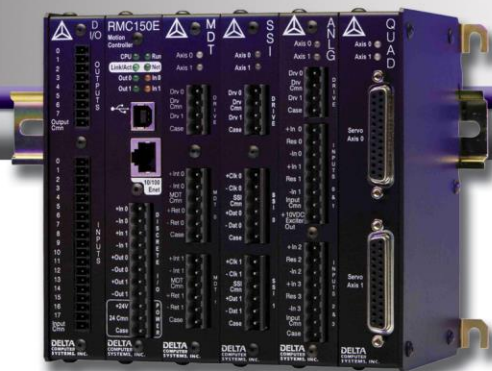


Comparing RMC150/151 and RMC100/101



RMC150/151 enhancements include the powerful RMCTools software, and a 32-bit floating point interface versus the 16-bit integer interface of RMC100/101. Upgrading from the RMC100/101 to the RMC150/151 will require reprogramming of the RMC and application software on any PLCs, HMIs or PCs used with the RMC. As such, the RMC150E CPU is a *design-in upgrade*, requiring more than a simple *drop-in replacement* for existing RMC100 CPUs.

When retrofitting existing RMC100/101 installations with an RMC150/151, this document provides important information, such as compatible modules and module versions, features, etc.

General Modules Support Differences

More DI/O

In Ethernet applications, the built-in RMC150E CPU Ethernet port frees the left-most slot for a DI/O module. The RMC150/151 also increases support for discrete I/O modules from 2 to 4.

More Analog Inputs

Not all of the analog inputs could be used on some RMC100/101 configurations; all can be used on the RMC150/151.

Supported Modules

The RMC150/151 does not support all of the modules supported by the RMC100/101. See the **Modules Support/Differences** section for a list. The RMC150/151 requires newer versions of some modules.

Performance and Features

Although the axis modules are the same, the RMC150/151 firmware and RMCTools software enable higher performance and more flexibility in some cases, particularly with quadrature modules.

Position-Pressure and Position-Force

The RMC151 supports up to 8 position-pressure or position-force axes if the position and pressure inputs are all analog. The RMC151 supports up to 4 position-pressure or position-force axes if the position inputs are not analog.

Product Support

Delta will continue to support the RMC100/101.

All RMC motion controllers are backed by a company legacy of more than 25 years of excellent product support. Responsive 24/7 customer service is just a telephone call away.

Programming

The RMC100/101 Event Step Programs must be rewritten into the more flexible RMC150/151 User Programs.

Communications

The RMC150/151 supports only Ethernet communications. PROFIBUS and possibly serial RS-232/485 are planned for the future.

RMC150/151 DATASHEET



Modules Support / Differences

✓ = Supported, ✗ = Not Supported.

Axis Modules	RMC100/101	RMC150/151			
	Supported (all board revs)	Supported	Minimum Board Rev	Minimum Module Version	Notes
MDT(M)	✓	✓	1.3	7	Earlier module versions are supported, but version 7 is recommended for 250µs and 500µs loop times.
SSI(S)	✓	✓	1.3	7	Module version 6 is also supported, but version 7 is required for 4ms loop times.
Analog (H)	✓	✓	1.2	7	Earlier analog module versions are supported, but version 7 is required for 250µs and 500µs loop times and recommended for 4 ms loop times.
Analog (G)	✓	✓	1.0	7	
Analog(A)	✓	✓	1.2	7	
Quadrature(Q)	✓	✓	2.0	7	Supports registration and more homing options, including z-pulse homing.
Stepper(QST)	✓	✗			No plans for support.
Resolver(R)	✓	✓	1.2	2	
Discrete I/O					
DI/O	✓	✓	1.4	5	Supports up to 4 DI/O modules.
Comm Modules					
ENET	✓	✗			The RMC150E CPU has built-in 10/100 Mbps Ethernet.
PROFI	✓	✓	1.2	1	
SERIAL	✓	✗			Will not be supported.
MB+	✓	✗			Will not be supported.
Other					
UI/O	✗	✓	1.3		

Control Features Differences

Feature	RMC100/101	RMC150/151
Data Registers	16-Bit Integer	32-Bit Floating Point and Integers
Maximum Control Axes	8	8
Maximum Total Axes	8	16
Maximum Position-Pressure (Dual-Loop) Axes	4	8, if the position feedback is analog
Splines	Supported	Supported
Sinusoidal Move	Supported	Supported
Tuning Wizard	Supported	Supported
Autotuning	Not Supported	Supported