

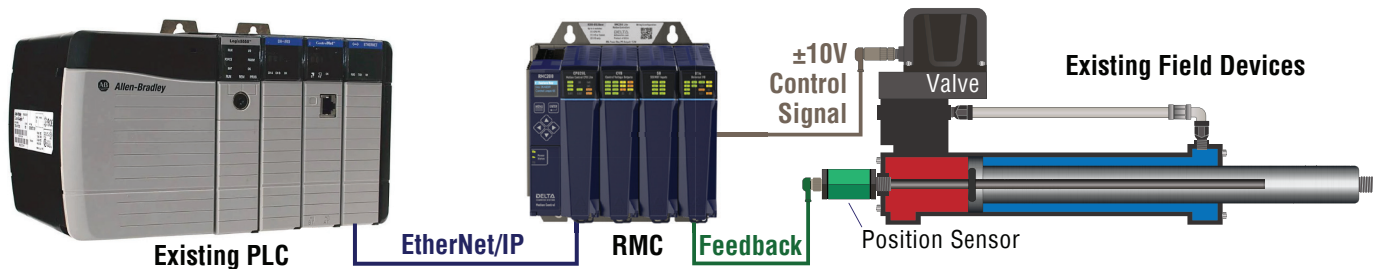
# ControlLogix Analog Motion Replacement Option: Delta's RMC Motion Controllers



The Allen-Bradley 1756-HYD02, 1756-M02AS, and 1756-M02AE motion modules have been workhorses in industrial applications for decades. These two-axis ControlLogix modules connect to a hydraulic valve or motor drive via an analog  $\pm 10V$  signal and support a variety of feedback types:

	1756-HYD02	1756-M02AS	1756-M02AE
<b>Analog Output</b>	$\pm 10V$	$\pm 10V$	$\pm 10V$
<b>Feedback</b>	Start/Stop & PWM	SSI	Encoder (A,B,Z)

Rockwell Automation is discontinuing these 'analog' motion modules in 2024 without a direct plug-in replacement option. RA recommends that OEMs and systems integrators consider RMC Motion Controllers from Delta Motion as an alternative for these modules. Delta's stand-alone motion controllers communicate efficiently with AB PLCs via EtherNet/IP and connect to all of the same field devices:



RMC Motion Controllers can duplicate the function of the discontinued ControlLogix 'analog' motion modules.

## Replacement Features of Delta's RMC Motion Controllers

- $\pm 10V$  outputs (some RMCs also have  $\pm 20mA$  and 4-20mA options)
- Connection to feedback inputs: Quadrature, SSI, PWM, Start-Stop (Analog options are also available)
- Single and multi-axis: RMCs are available from 1 to 50 axes for tightly synchronizing axes

## Additional Features of Delta's RMC Motion Controllers

- Command-based programming keeps most control in the PLC, or
- RMC User Programs can offload critical motion-related tasks from the PLC
- Easy-to-use and powerful RMCTools software (freely downloadable)
- Analog and load cell inputs for position, pressure or force feedback
- Extensive control algorithm options, including dual-loop position-pressure or position-force control
- Knowledgeable and responsive technical support 24/7/365



## Using RMCs with AB PLCs

	2 Axes	1 or 2 Axes	Up to 50 Axes
<b>Feedback</b>	1756-	RMC75E	RMC200L, RMC200*
<b>Start/Stop, PWM</b>	HYD02	MA1, MA2	S8, CV8, CA4, U14
<b>SSI</b>	M02AS		
<b>Quadrature</b>	M02AE	QA1, QA2	Q4, CV8, CA4, U14

\*RMC200 Lite or Standard requires one or more I/O modules depending on the number of axes

## Choosing an RMC Motion Controller

### 1. Choose a Delta Motion controller:

<b>1 or 2 Axes</b>	RMC75E
<b>Up to 18 Axes</b>	RMC200 Lite
<b>Up to 50 Axes</b>	RMC200 Standard

### 2. Choose Modules:

**RMC75E** (supports one Axis Module)

Axis Module	Outputs	Inputs
<b>MA1</b>	(1) $\pm 10V$	(1) Start/Stop, PWM, or SSI
<b>MA2</b>	(2) $\pm 10V$	(2) Start/Stop, PWM, or SSI
<b>QA1</b>	(1) $\pm 10V$	(1) Encoder (A,B,Z)
<b>QA2</b>	(2) $\pm 10V$	(2) Encoder (A,B,Z)



See [deltamotion.com/products/motion/rmc70/](http://deltamotion.com/products/motion/rmc70/) for details, including expansion modules.

**RMC200 Standard or Lite** (supports multiple modules)

Module	Outputs	Inputs
<b>CA4</b>	(4) $\pm 10V$ or $\pm 20$ mA	-
<b>CV8</b>	(8) $\pm 10V$	-
<b>S8</b>	-	(8) Start/Stop, PWM, or SSI
<b>Q4</b>	-	(4) Encoder (A,B,Z)
<b>U14</b>	(2) $\pm 10V$ or $\pm 20$ mA	(2) Start/Stop, PWM, SSI, or Encoder (A,B,Z)



See [deltamotion.com/products/motion/rmc200/](http://deltamotion.com/products/motion/rmc200/) for details, including choosing base modules, power supplies, and other modules.

### 3. Configure a controller and request a quote: [deltamotion.com/rmcquote/rmcselect.php](http://deltamotion.com/rmcquote/rmcselect.php)

## Next Steps:

- Visit [deltamotion.com/abtornc](http://deltamotion.com/abtornc) for complete details on using RMCs with AB PLCs

#### Additional Resources

RMC Training Options: [deltamotion.com/education/](http://deltamotion.com/education/)

ControlLogix and RMC Comms Video: [deltamotion.com/controllogixvideo](http://deltamotion.com/controllogixvideo)

RMC Training Videos: [deltamotion.com/education/tutorials/training/](http://deltamotion.com/education/tutorials/training/)

ControlLogix and RMC Comms Step-by-Step Instructions: [deltamotion.com/controllogixtornc](http://deltamotion.com/controllogixtornc)

- Call Delta Motion at **+1 360-254-8688** or email us at [sales@deltamotion.com](mailto:sales@deltamotion.com)

# DELTA MOTION

Delta Motion has 40 years of expertise in servo-hydraulic and servo-electric motion control. Delta co-developed the 1756-HYD02 and -M02AS in conjunction with AB and has been supplying them under a Private Label agreement since their introduction in 2003.

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