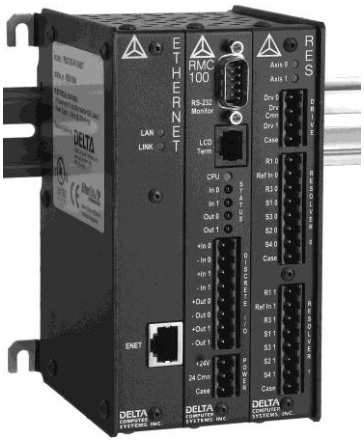

RMC Resolver

Resolver Interface for RMC100 Motion Controllers

The RMC controller provides synchronized moves, gearing, splines, teach mode, and position/pressure control for rotary and linear axes. The resolver interface module allows the RMC to control motors and linear actuators using resolvers for position feedback.

RMC controllers are available with up to eight resolver axes in steps of two axes per module. Various transducer interfaces (resolver, quadrature, MDT, analog, SSI) can be combined within the same controller to provide maximum flexibility.

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

Applications

- Presses
- Robotics/animatronics
- Position or speed control
- Stamping
- Indexing
- Flying cutoff/curve sawing
- Transfer lines
- Packaging machinery
- Parts handling
- Winding/wrapping machines
- Web control
- Headrigs
- Palletizers/stackers
- Injection/RIM/blow molding

Features

- Two axes of resolver feedback per module
- 14 or 16 bit resolution
- Reference frequency from 800 Hz to 5 kHz
- Resolver Transformation Ratios from 0.42 to 1.41
- Multicolor Status LEDs
- Two isolated, ±10V, 14-bit drive outputs per module
- Current output up to ±200mA with VC2124 or VC2100 converter options
- Custom options available – contact Delta

Inputs and Outputs

The following inputs and outputs are available on each axis:

- Analog Drive Output
- Resolver Interface:
  - Reference Output
  - Sine Input
  - Cosine Input

Ordering Information

RMCs may be ordered with up to four resolver modules. Append **-R*n*** to the part number to select *n* resolver modules.

For example:

- **RMC100-R1-DI/O:** 2 axes of resolver position/speed control.
- **RMC101-R2-A1-ENET:** 4 axes of Resolver position/speed control with 4 channels of analog input and pressure control.

DELTA COMPUTER SYSTEMS, INC.

RMC Resolver

Specifications

Resolver Interface	Axes	Two per module
	Reference Frequency	800 Hz to 5 kHz
	Reference Output Voltage	1.41 to 4.8 V RMS
	Reference Output Current	28 mA max.
	Resolver Transformation Ratio (SIN_{MAX}/Reference)	0.42 to 1.41
	Resolution	14 or 16 bits
	Maximum Speed	3000 RPM at 14 bits and 600 RPM at 16 bits
	Maximum Acceleration	1200 RPS per second at 14 bits and 60 RPS per second at 16 bits
	Accuracy	4 Minutes +1 LSB
Drive Interface	Drive Outputs	Two ±10 V, 5 mA maximum, 14-bit DAC
	Isolation	500 VDC
	Current Output Accessory	VC2124 or VC2100 voltage-to-current converter output range is adjustable from ±10mA to ±200mA in 10mA steps
Environment	Operating temperature	+32 to +140 °F (0 to +60 °C)
	Storage temperature	-40 to +185 °F (-40 to +85 °C)
	Agency compliance	
Power Requirements	All RMC modules are powered from the RMC controller.	

Resolver Wiring

Resolver 0:

Pin	Function
R1 0	Reference Output +
Ref In 0	Reference In (normally not used)
R3 0	Reference Ouput –
S1 0	Sine Input +
S3 0	Sine Input –
S2 0	Cosine Input +
S4 0	Cosine Input –
Case	Controller chassis ground (shield)

Drive Outputs 0 and 1:

Pin	Function
Drv 0	Axis 0 Drive
Drv Cmn	Drive common (Isolated)
Drv 1	Axis 1 Drive
Case	Controller chassis ground (shield)

Resolver 1:

Pin	Function
R1 1	Reference Output +
Ref In 1	Reference In (normally not used)
R3 1	Reference Ouput –
S1 1	Sine Input +
S3 1	Sine Input –
S2 1	Cosine Input +
S4 1	Cosine Input –
Case	Controller chassis ground (shield)

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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