

MOTION CONTROLLER

RTC3000

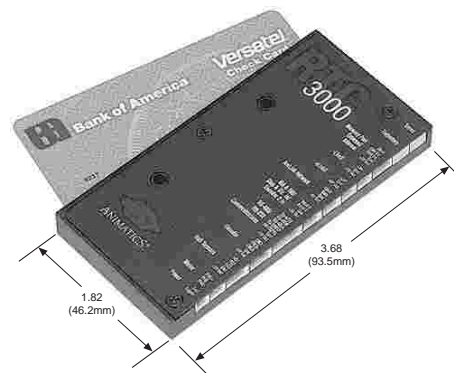
The **RTC3000** is a miniature servo controller with built-in amplifier for use in OEM equipment to control very small brushed or brushless DC servo motors.

It fills a void in the industry for an extremely compact and inexpensive control solution for the likewise very small motors. It measures 3.68 X 1.815 X 0.35 inches and makes all connections on the side of the long edge. The **RTC3000** operates from a 12 to 24 VDC source and switches 1 Amp of continuous and 3 Amp of peak current. The small motor controller outputs are protected from short circuit to each other, to supply and to ground. The 32K of internal program memory can be used by jumpering two signals together at the memory port. Alternatively, the port signals can be routed to an external memory module. Either way, the unit can be programmed in BASIC to operate stand-alone. Stand-alone programs can interact with all inputs and outputs of the **RTC3000**, affording total flexibility and a multitude of additional interface options. The controller communicates over RS-232 and RS-485. All signal ports have supply and ground to power external devices such as limit switches, encoders, hall sensors, etc. A total of 150 mA of current can be drawn.

Like the SmartMotor™, the **RTC3000** has an additional network port called AniLink™ that interfaces a vast array of peripherals. Multiple **RTC3000**'s may be stacked to create a multi-axis control module.

Key Parameters

Dimensions	3.68" x 1.815" x 0.35" (93.5 x 46.2 x 8.89mm)
Source voltage	12 - 24VDC
Switching current	1 A continuous, 3 A peak
Internal memory	32k
Communication	RS-232, RS-485, AniLink™ network
Inputs	7 user assignable I/O, analog input and digital I/O capability
External device power	150mA max
Weight	2.1oz (0.29kg)



Pin Memory Module

- 1 +5 volts out
- 2 Ground
- 3 Data-Int
- 4 Data-Ext
- 5 Clock out

Negative Limit

- 1 +5V
- 2 Ground
- 3 - Limit

Positive Limit

- 1 +5V
- 2 Ground
- 3 + Limit

AniLink™ Port

- 1 +5V
- 2 Ground
- 3 Data
- 4 Clock

I/O Port

- 1 +5V
- 2 Ground
- 3 Enc. A in/Step in/IO A
- 4 Enc. B in/Dir. in/IO B

Pin Communications Port

- 1 +5V
- 2 Ground
- 3 RS-232 Tx
- 4 RS-232 Rx
- 5 RS-485 A
- 6 RS-485 B
- 7 I/O G

Encoder Input Port

- 1 +5 volts out
- 2 Ground
- 3 Enc. A in
- 4 Enc. B in
- 5 Enc. I in

Hall Sensor Input Port

- 1 +5V
- 2 Ground
- 3 Hall 3 in (To ground for Brushed)
- 4 Hall 2 in
- 5 Hall 1 in

Motor Output Port

- 1 Phase A (Motor neg. for Brushed)
- 2 Phase B
- 3 Phase C (Motor pos. for Brushed)

Power Input Port

- 1 Positive voltage (DC)
- 2 Ground

Connector Data

Connector Type	Animatics Part #	Molex Part #
2 pin	CN164	51021-0200
3 pin	CN165	51021-0300
4 pin	CN166	51021-0400
5 pin	CN167	51021-0500
7 pin	CN168	51021-0700
Crimp Contact	P126	500-79-8100

KITRTCCONN

The **RTCDEVPACK** is available as a development package for the **RTC3000**. Also available is the **KITRTCCONN** which is the connector kit only.

