

Application Note #1249

AMP-141x0 20W Linear Servo Amplifier

The AMP-141x0 is a linear brush servo amplifier offering up to 20W per axis, designed for direct plug-in to the DMC-14x5 and 34x5 motion controllers. The AMP-141x0 is available in single axis (AMP-14110) or two axis (AMP-14120) versions, and has two factory-configurable gains for up to 1A per axis at 12-30VDC, or up to 100mA per axis at 12-18VDC. All versions require the use of a bi-polar power supply, similar to that of the AMP-20341.



AMP-141x0 Linear Servo Amplifier

The part numbering for this amplifier is as follows:

Part Number	Description
AMP-141x0-1A-Axis	One or two axis amplifier, gain is 0.1 A/V. For single axis version, select axis X or Y to be amplified.
AMP-141x0-100mA -Axis	One or two axis amplifier, gain is 0.01 A/V. For single axis version, select axis X or Y to be amplified.

(Please contact applications engineering for further questions on application.)

Part Number Examples:

Single-axis 1A version with the X axis amplified: AMP-14110-1A-Xaxis.

Single-axis 100mA version with the Y axis amplified: AMP-14110-100mA-Yaxis.

Two-axis 100mA version (both axes amplified): AMP-14120-100mA.

I. Configurations & Wiring

For one axis versions, the X or Y axis can be specified for amplification. The amplifier gains cannot be mixed between axes, and the amplifier cannot be used with controllers other than the DMC-14x5 and DMC-34x5. Encoder channels are connected to the appropriate pins of J3 37-Pin DSub on the controller.



AMP-14120-1A mounted to the DMC-1425

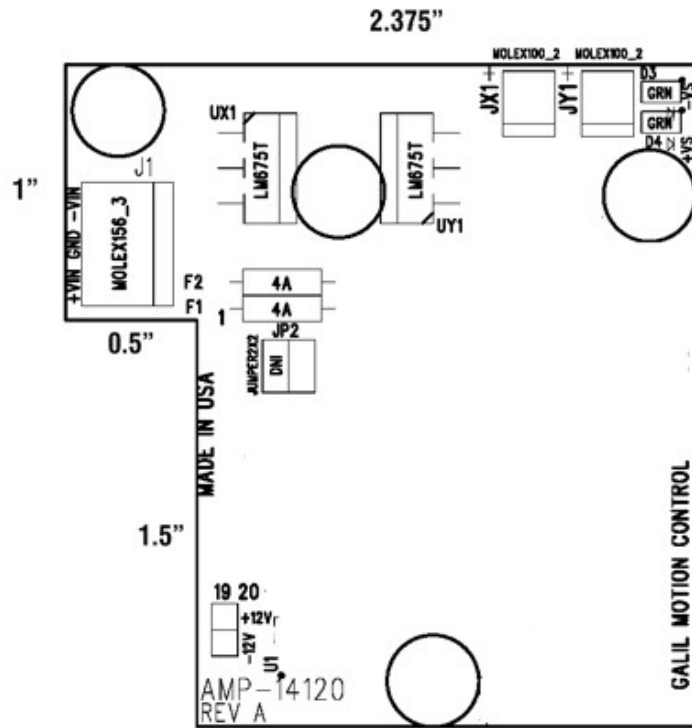
Pinout

J1 Power Input 3-Pin Male AMP	JX1 X Motor Output 2-Pin Male Molex	JY1 Y Motor Output 2-Pin Male Molex
1 + Vin	1 XMO+	1 YMO+
2 GND	2 XMO-	2 YMO-
3 - Vin		

Mating Connectors

	Connector	Terminal Pins
J1: Power	Molex: 26-03-4030	Molex: 08-50-0189
JX1-JY1: Motor Leads	Molex: 22-01-3027	Molex: 08-50-0114

II. Board Layout



Overall Footprint: 2.50" x 2.375".

Overall Height above DMC-14x5 or DMC-34x5: 2.55".