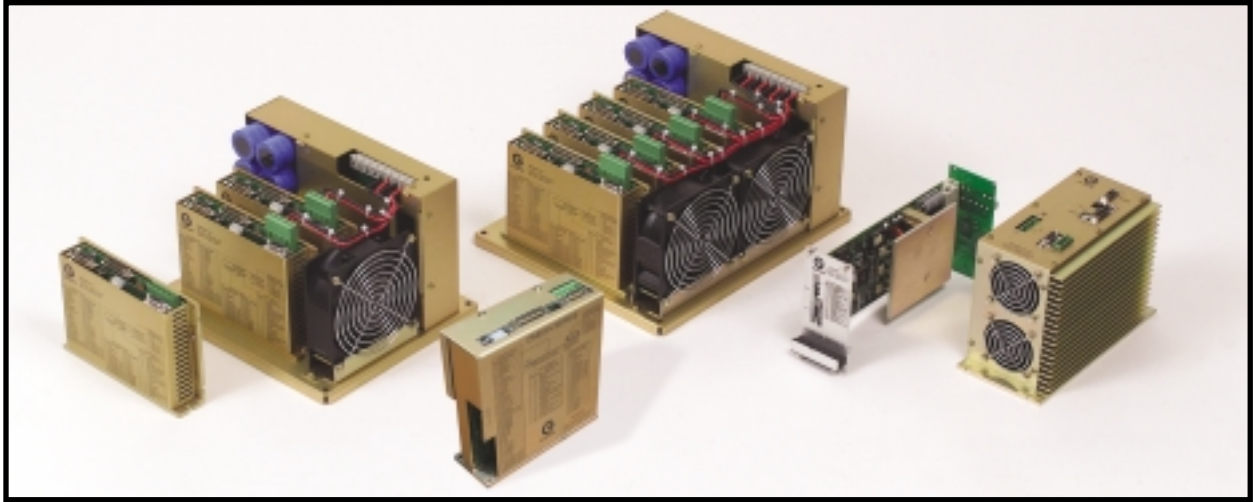


OMEGA SERIES DIGITAL PWM BRUSHLESS SERVO AMPLIFIERS



Glentek's Omega Series Digital PWM Brushless Servo Amplifiers offer the latest in high performance DSP control of both rotary and linear brushless servo motors. With extensive utilization of surface mount technology and special heat transfer techniques, the Omega Series offers one of the world's most powerful products for a given form factor. The Omega Series is comprised of the following models:

Full Feature Servo Amplifier

The Full Feature servo amplifier operates in current (torque) or velocity (RPM) mode, accepts a +/-10V analog input as a command reference and commutates the motor sinusoidally for ultra smooth operation at low speeds. It requires an incremental encoder to derive the velocity signal and to commutate the motor. The absolute commutation angle is usually determined using Hall sensors or encoder Commutation tracks. However, in some cost sensitive applications where slight motor movement is acceptable upon power up, the amplifier can perform a power-on phase finding algorithm which eliminates the need for Hall sensors or Commutation tracks. Special versions are also available that decode Sanyo Denki, Tamagawa and Yaskawa reduced wire encoders.

2-Phase Current Mode Servo Amplifier

The 2-Phase Current Mode servo amplifier accepts two +/-10V analog inputs as current command references for two of the motor phases and derives the third command reference. This amplifier does not use any feedback devices and is used with controllers that provide the commutation.

Pulse Follower Servo Amplifier

The Pulse Follower servo amplifier incorporates all the features of the Full Feature servo amplifier and also accepts two digital pulse inputs as a position command reference. The two pulse inputs are high speed, differential and optically isolated digital inputs which can be configured to decode three pulse types and can be geared up or down (electronic gearing). The motor position and speed are a function of the number of pulses and the rate of the pulses respectively. The following pulse types can be decoded:

Quadrature – Two pulse inputs in quadrature, such as the output of an incremental encoder or an encoder pot determine both command distance and direction. This pulse decoding is useful to slave one motor to another by connecting the master motor's encoder output to the slave motor's pulse inputs.

Pulse (step) and Direction – The first input is a pulse train used to establish the absolute distance and velocity of the command and the second input is a direction signal used to establish the polarity of the command. This pulse type is output by many stepper motor controllers and allows upgrading a stepper motor system to a servo motor system without the need to change controllers.

CW/CCW Pulse mode – The first input is a pulse train to command positive moves and the second input is a pulse train to command negative moves. This pulse type is also generated by some older stepper motor controllers and may be useful in upgrading to a servo motor system.

Glentek, Inc.

**208 Standard Street • El Segundo, California 90245 USA
(310) 322-3026 • (310) 322-7709 Fax • www.glentek.com**