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FOR IMMEDIATE RELEASE

SINUSOIDAL COMMUTATION NOW STANDARD WITH GALIL'S DMC-1600 & DMC-1700 CONTROLLERS

*Controllers Take Command of Signals – Enabling Cost-Effective
Solution For Brushless Motors*

MOUNTAIN VIEW, Calif., March 11, 1998 — Galil Motion Control, Inc., pioneer and leader of digital motion control technology, today announced that their DMC-1600 Compact PCI Bus and DMC-1700 ISA Bus controllers now include sinusoidal commutation for brushless motors as a standard feature. This enables the controller to generate current command signals, allowing for the use of low-cost amplifiers.

Sinusoidal commutation controls the motor in a manner that minimizes the power dissipation in the motor. Another advantage of this method is that the output signals vary gradually resulting in smoother motion, especially when applied to linear motors.

“Sinusoidal commutation promises to be a cost-effective method for controlling brushless motors for high-precision applications,” said Lisa Wade, vice president of sales and marketing at Galil Motion Control. “Soon, everyone will be cutting costs by using a motion controller that is inherently more precise than expensive amplifiers.”

In the sinusoidal commutated system, the main control loop is like a conventional servo system in that the closed loop compares the reference position with the feedback to form the position error. Compensation filter produces the signal, which represents the required torque for acceleration. Unlike conventional systems that apply the signal to the amplifier, a sinusoidally commutated system generates two current command signals that are shifted by 120°. The two signals are applied to an amplifier that generates

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proportional currents. Because the sum of all three phase currents must be zero, the amplifier easily constructs the third current. An optical encoder attached to the motor shaft reports the motor position enabling the controller to determine the commutation phase.

To effect the sinusoidal commutation, one must initialize the commutation phase. Galil provides several initialization methods including the most common, Hall sensors. The sinusoidal commutation feature is configurable by the user on all DMC-1700 and DMC-1600 controllers and is available at no extra charge.

Galil's Product Line

Galil's array of motion controllers are designed to solve complex motion problems for such applications as jogging, point-to-point positioning, vector positioning, electronic gearing, electronic CAM, multiple move sequences and contouring. Galil's newest product is their DMC-1600 Series of Compact PCI Bus controllers, featuring Eurocard design and 'plug and play' installation. The DMC-1700 Series of ISA Bus motion controllers allow up to 8 axes on a single card. The DMC-1400 Series provides an economical, 'half-size, half-price' solution for 1-axis applications, while the DMC-1500 Series are stand-alone motion controllers that provide intelligent, precise control without a host computer.

About Galil

Founded in 1983, Galil Motion Control, Inc., is a privately held company with a sales volume of over \$25 million in 1997, and 50 consecutive profitable quarters. Galil has become an industry leader in producing motion controllers and has over 200,000 motion controllers at work in such industries as machine tools, manufacturing, medical equipment, aerospace, materials handling, semiconductor manufacturing and testing, food processing, textiles and a wide-range of test and measurement equipment.

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