

Compumotor Drives

Compumotor offers a variety of digital drives in many input and output power ranges. The drive families include the Gemini GV, SLVD, HPD, OEM770 and Dynaserv G2. Refer to the chart below to select the optimal drive for your application requirements, or refer to each drive's particular section in the catalog.

Need a little more control?

The GV, SLVD and HPD drive products offer the user basic control capabilities: I/O, position presets and encoder tracking; however, if your application requires additional control capabilities, Compumotor offers a full range of drive/controllers. For complete information on Compumotor's drive/controller offering, please refer to the drive/controller selection table on the next page.

Drive Selection

	GV	SLVD	HPD	OEM770	Dynaserv G2
Motor Type	Brushless Servo Motors (SM, BE, Neo, J & M)	Brushless Servo Motors (BE, Neo & J)	Brushless Servo Motors (M)	Brushless Servo Motors (SM & BE)	Direct-Drive Dynaserv Motors (DM & DR)
Language Type	Mnemonic command language (binary format)	Parameter-based command (ASCII format)	Parameter-based command (ASCII format)	NA	NA
Support Software	Motion Planner	SLVD Utility	HPD Utility	NA	G2 Utility
Robustness	Moderate - for light industrial application	Moderate - for light industrial application	High - for industrial application	Moderate - for light industrial application	Moderate - for light industrial application
Power Input	120 1 Phase 240 1 Phase 240 3 Phase	240 3 Phase	240 3 Phase 480 3 Phase	24 VDC 75 VDC	120 1 Phase 240 1 Phase
Shaft Power continuous @ 3000 RPM	40W - 7.1kW	100W - 620W	2.5kW - 17kW	30W - 200W	NA
Feedback Choices	Encoder standard (resolver option)	Resolver	Resolver	Encoder	Dynaserv feedback only
Front Panel	Windows CE device compatibility	Built-in menu-driven display	Built-in menu-driven display	NA	NA
Inputs/Outputs	3 Inputs 2 Outputs	2 or 4 inputs 2 Outputs	8 Inputs 7 Outputs	NA	NA
Position Presets	No	Yes	Yes	No	No
Following (Encoder Tracking)	Yes	Yes	Yes	No	No
Internal PLC	No	Yes	Yes	No	No

Why Drive/Controllers?

Drive/controllers offer a unique and efficient solution for single axis or independent axis of motion. By combining the controller and the drive into one package, packaging and cabling can be eliminated, which translates into cost savings. Drive/controllers come in a variety of types and styles that allow many options of connection to the machine control elements and allow varying amounts of control complexity.

Drive/Controller Selection

Compumotor offers the most diverse and complete line of servo drive/controllers in the industry. Based on the exact needs of the application, Compumotor will recommend a different model of drive/controller. The following table and key decision points will help you decide the best product for your application.

Drive/Controller Selection		GV6	GV6K	COMPAX	SLVD	HPD	OEM770X	Dynaserv M2
Motor Type		Brushless Servo Motors (SM, BE, Neo, J & M)	Brushless Servo Motors (SM, BE, Neo, J & M)	Brushless Servo Motors (SM, BE, Neo, J & M)	Brushless Servo Motors (BE, Neo & J)	Brushless Servo Motors (M)	Brushless Servo Motors (SM & BE)	Direct-Drive Dynaserv Motors (DM &DR)
Language Type		Mnemonic command language (ASCII or binary format)	Mnemonic command language (ASCII format)	Parameter-based command language (ASCII format)	Parameter-based command language (ASCII format)	Parameter-based command language (ASCII format)	Mnemonic command language (ASCII format)	Specialized G code (ASCII format)
Application Complexity		Moderate	High	High	Moderate	Low	Low	Moderate
Support Software		Motion Planner	Motion Planner	Servo Manager	SLVD Utility	HPD Utility	Xware	M2 Utility
Robustness		Moderate - for light industrial application	Moderate - for industrial application	High - for industrial application	Moderate - for light industrial application	High - for industrial application	Moderate - for light industrial application	Moderate - for light industrial application
Power Input		120 1 Phase 240 1 Phase 240 3 Phase	120 1 Phase 240 1 Phase 240 3 Phase	120 1 Phase 240 1 Phase 240 3 Phase 480 3 Phase	240 3 Phase	240 3 Phase 480 3 Phase	24 VDC 75 VDC	120 1 Phase 240 1 Phase
Shaft Power continuous @ 3000 RPM		40W - 7.1kW	40W - 7.1kW	118W - 17kW (@1500 RPM)	100W - 620W	2.5kW - 17kW (@1500 RPM)	30W - 200W	NA
Feedback Choices		Encoder standard (resolver option)	Encoder standard (resolver option)	Resolver standard (SinCos + Absolute option)	Resolver	Resolver	Encoder	Dynaserv feedback only
Front Panel		Windows CE device compatibility & MotionPanel	RP240 & MotionPanel	Parker Operator Panel (POP)	Built-in menu-driven display	Built-in menu-driven display	NA	NA
Supported Fieldbuses & Interfaces		DeviceNet Profibus RS485, RS232	Ethernet RS485, RS232	Profibus Interbus- RS485 CS31 RS232 CAN bus CAN open	CAN RS485	RS485	RS232	DeviceNet Profibus

Find Your Local Factory Authorized Distributor at www.compumotor.com or Call 1-800-358-9070.

Recommendations

Key Decision Points and Recommendations

Language Type and Programming Style

Based on your background and training, you may have different preferences for the style of programming you desire. Engineers familiar with Ladder logic and PLC systems are more comfortable with parameter-based products. These products allow setting up of many parameters (e.g., velocity, distance, modes) and then have only a few commands to command motion. Engineers familiar with computer programming are more comfortable with mnemonic languages that have a specific command for each function or setup parameter. Finally G codes are a well accepted programming style adapted from CNC machining systems.

Industry Robustness (Input Power, Feedback and I/O)

For applications in industrial environments, Compumotor recommends the COMPAX or HPD families. These drives also contain 480 VAC input and I/O made to stand up in industrial application. These products are also the most economical and highest performance choices when a resolver is desired as the primary motor feedback. All Compumotor drive products are required to be mounted in a suitable enclosure based on the environment.

Drive/Controllers

Specialty Applications

All drive/controllers can solve simple point-to-point moves for general motion control applications.

Cam Control – COMPAX Servo Manager software allows easy setup and designing of complex electronic cam motion.

Ethernet Networking – The GV6K is one of the first drive/controllers available with a standard Ethernet port. Combined with Compumotor software, the GV6K provides high-speed, flexible and low-cost connectivity to a wide variety of devices.

General following – The GV6K position-based following is flexible and powerful and can handle advanced features such as advance/retard and error correction without losing synchronization.

Computer-Free Operation

The front panel on the HPD and the SLVD allows setup and configuration of the drive controllers without the use of a computer for editing.



Efficient solutions: Compumotor's line of drive/controllers includes the COMPAX 1000SL (left), the HPD (above) and the Gemini GV6K (right).