

GLENTEK LINEAR BRUSH SERVO DRIVES MODELS: SMA5015

Revision: 1/12/18



Glentek offers the latest in high performance Linear Brush Servo Drives for the control of both DC brush servo motors and voice coil motors. With extensive utilization of surface mount technology and special heat transfer techniques, Glentek's Linear Brush Servo Drives offer one of the world's most powerful products for a given form factor. All models can operate in current (torque) or velocity (RPM) mode and accept a +/-10 VDC analog input as a command reference. All models can close the velocity loop via feedback of a DC tachometer. Output current is 10 amps continuous, 25 amps peak. Operating voltages range from 17 to 39 VAC. These drives are best suited for low inertia applications that require high bandwidth, low noise, and zero crossover distortion and for motors or voice coils that require high current loop bandwidths.

ELECTRICAL RATINGS								
Model Number	Input Voltage		Continuous Current (A)	Peak Current (A)	Power Dissipation (W) ⁽²⁾	Available Package Configurations		
	VDC	VAC				Module	Stand Alone	Multi-Axis
SMA5015	N/A	17-39	10	25	300		•	

Notes: ⁽²⁾ At ambient temperature (25°C).

Command/Control Modes
+/-10 VDC for current (torque)
+/-10 VDC for velocity (RPM)
Feedback
DC Tachometer
Dedicated Inputs
Dedicated Inputs: +/- Limits, inhibit, fault and reset

FEATURES

Performance	
Multimode operation	All models can operate in current (torque) or velocity (RPM) mode and accept a +/-10 VDC analog input as a command reference.
Linear output stage	Provides high bandwidth, low noise, and zero crossover distortion.
Bandwidth	All servo drives have a nominal 10kHz current loop bandwidth which varies with the motor inductance. Higher bandwidths are available upon request.
Fault protection	Short from output to output, short from output to ground, drive RMS over current, drive under/over voltage, drive over temperature, motor over temperature.
Heat dissipation	(@ 25°C): 300 Watts continuous.
External fault reset	An input is provided to reset the drive in the event of a fault.
Current limit	Peak motor current is adjustable.
Dedicated Inputs	
Dedicated Inputs	+/- Limits, enable, fault and reset.
Input	
Wide operating voltage	Operating voltages range from or 17 to 39 VAC for the stand alone configuration.
Build	
Ergonomic design	Easy access to connections, adjustments and test points.
Industry standard mounting	Available in a stand alone configuration. Glentek offers custom mounting configurations to meet virtually any requirement.
Status indicator	7-segment display indicates drive status.
Manual fault reset	A push button reset is available.

ENVIRONMENTAL CONDITIONS

Storage Temperature:	-40°C to 80°C
Operating Temperature:	Standard: 0°C to 40°C without current derating, up to 50°C with 25% current derating Special: -40°C to 40°C without current derating, up to 50°C with 25% current derating
Humidity:	5% to 95% relative humidity, non-condensing
Altitude:	Up to 1000m without derating, derate current 10% per 1000m above 1000m

DIMENSIONS

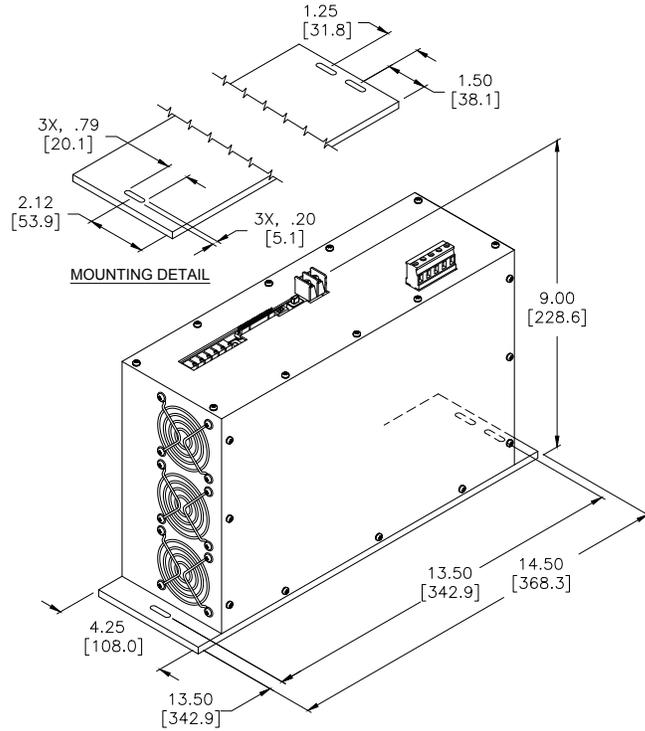
Mounting Configurations

Stand Alone

This package consists of a servo drive with a DC bus power supply, external bias voltage power supply and cooling fans.

SMA5015-1A Stand Alone

Dimensions are inches [millimeter]



Weight

10.2 lb / 4.6 kg

STAND ALONE MODEL NUMBERING

This section explains the model numbering system for Glentek's high performance Linear Brush Servo Drives. The model numbering system is designed so that you, our customer, will be able to quickly and accurately create the model number for the drive that best suits your requirements. Please complete the drive configuration code you require using the information on this page. After completing your model number, please contact a Glentek Sales Engineer to confirm that the model number you have created is correct.

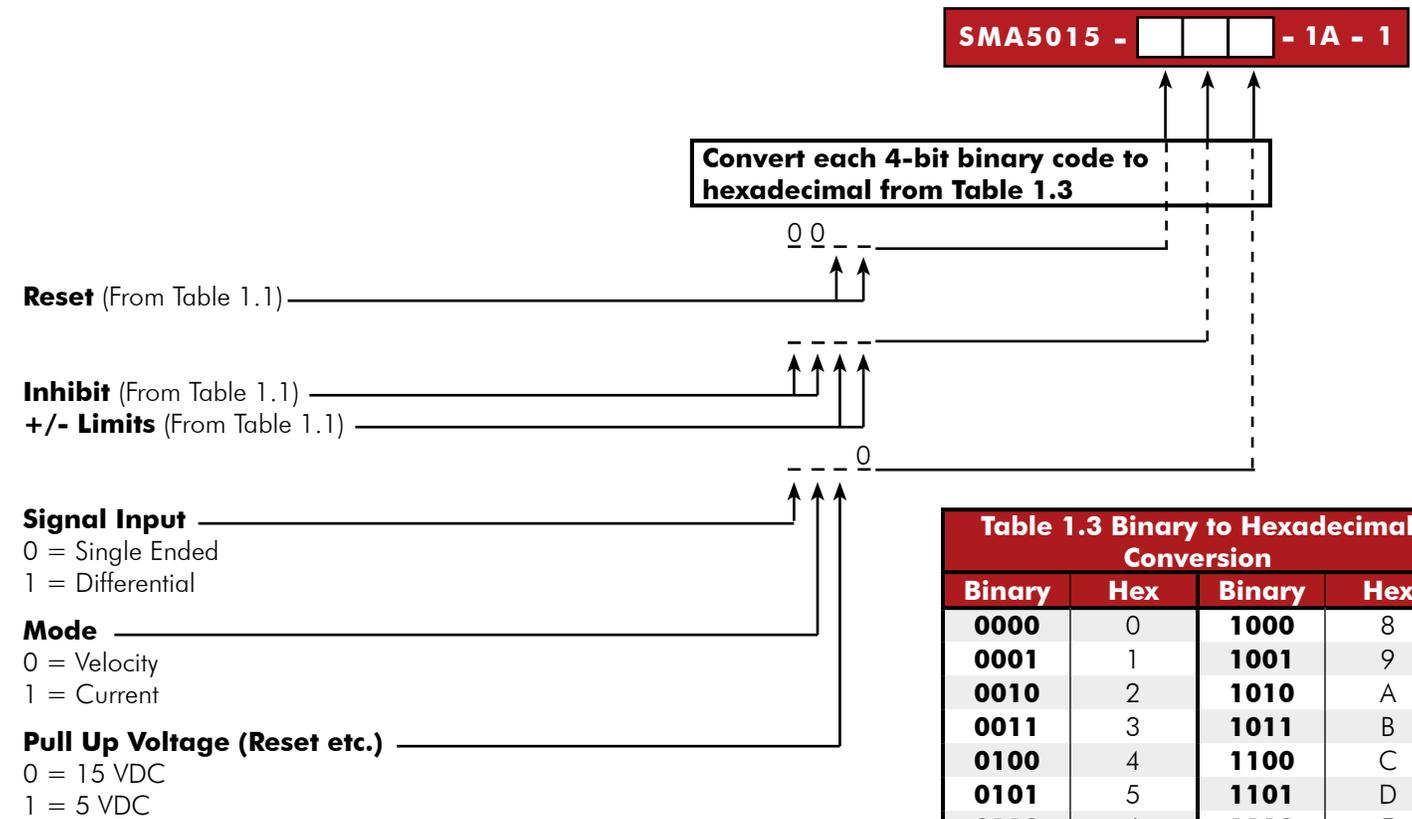
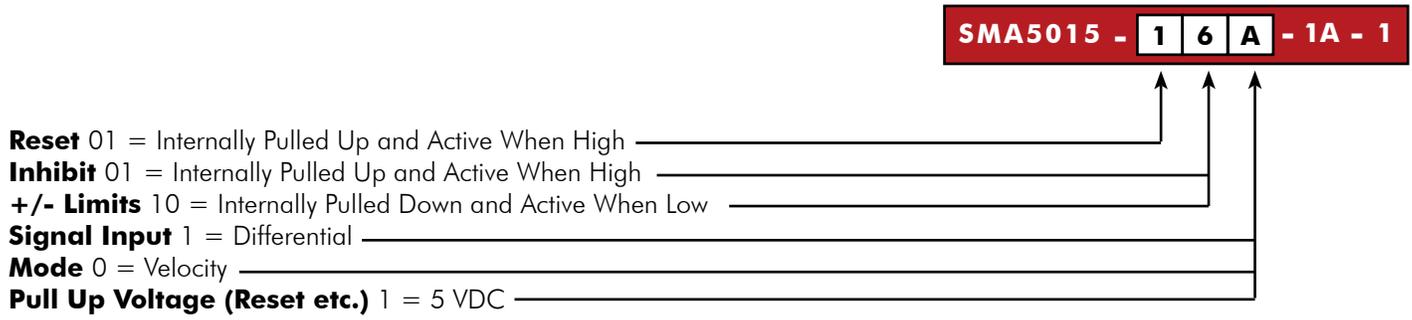


Table 1.3 Binary to Hexadecimal Conversion			
Binary	Hex	Binary	Hex
0000	0	1000	8
0001	1	1001	9
0010	2	1010	A
0011	3	1011	B
0100	4	1100	C
0101	5	1101	D
0110	6	1110	E
0111	7	1111	F

Table 1.1 Inhibit, Reset, +/- Limits Configuration			
Type	Input is:	Input State:	Binary
A	Internally Pulled Up	Active When Low	00
B	Internally Pulled Down	Active When High	11
C	Internally Pulled Up	Active When High	01
D	Internally Pulled Down	Active When Low	10

Table 1.2 Logic Input Configuration	
Type	Logic
A	Requires grounding of input to disable the drive.
B	Requires a positive voltage at input to disable the drive.
C	Requires grounding of input to enable the drive.
D	Requires a positive voltage at input to enable the drive.