

Output Type:
Linear

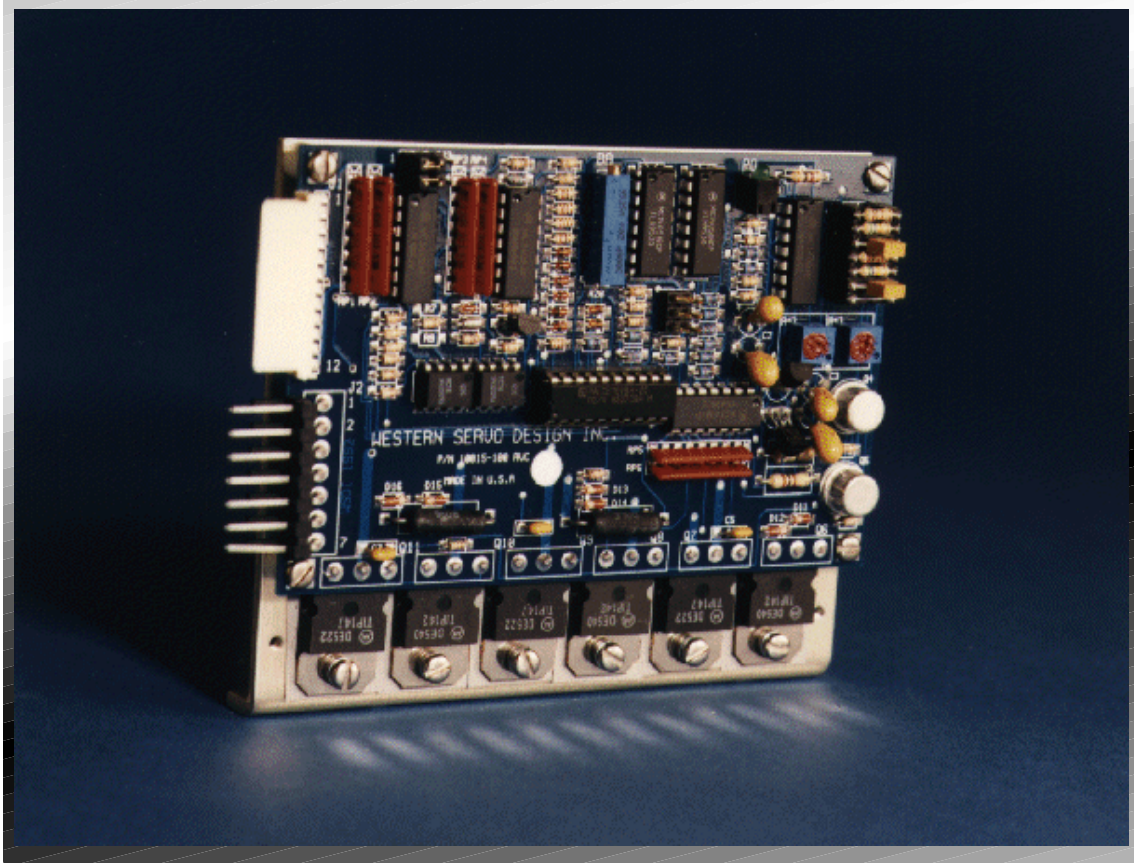
Voltage:
Up to 40 VDC

Amperage:
Up to 15 A Peak

Mounting:
3E Edge Mount

Modes:
Torque

Commutation:
Ext Sine or Digital Hall



BLH-S1

Low-Power Linear Brushless Servo Amplifier

The BLH-S1 is a low power brushless linear servo amplifier in a 3E Edge Mount format. It is ideally suited to high precision positioning applications or if electrical noise and excess motor heating cannot be tolerated, or when low inertia/low inductance loads must be driven. This amplifier can be configured for External Sinusoidal commutation or for self commutation using Digital Hall effect sensors. Look to the BLH-S3 if Analog Hall sensors are required.

The BLH-S1 is a single card unit with a small plug in Personality Component Carrier to allow customized component changes for the peak current, gain, and integration factors. Hall effect commutation or external sinusoidal commutation is jumper selectable. When using external sinusoidal commutation, the amplifier receives two 120° out of phase sinusoidal command inputs. The optimal third phase is derived by the amplifier. This eliminates "cogging" and greatly enhances low speed operation. An optional backplane is available to allow quick and easy access to motor, power, control and other I/O signals.

- 3E Edge Mount Format
- Accepts Digital Hall Effect Sensors
- Two Commutation Modes: Hall Effect and External Sinusoidal Input
- Zero Electrical Noise
- Travel Limits and Amp Enable Inputs
- Personality Component Carrier allows Custom Current Loop and Peak Current Configurations
- Bus Voltage: 20 - 40 VDC
- Continuous Current: 2 or 4 Amperes
- Excellent for use with Precision Positioning Systems
- Hall Power generated from Bus Voltage
- Designed for Three-Phase Wye or Delta Wound Motors
- Advanced Design, Superior Quality and High Reliability
- One Year Parts and Labor Warranty

SPECIFICATIONS

Standard Models:	4/8	4/15
Bus Voltage	20 to 40 VDC	20 to 40 VDC
Peak Output Current	8 A for 0.5 sec	15 A for 0.5 sec
Continuous Output Current*	2 A RMS	4 A RMS
Command Input Voltage: Hall Commutation Sinusoidal Commutation	0 to ±10 V 0 to ±5 V	0 to ±10 V 0 to ±5 V
Command Input Impedance	40 kOhm	40 kOhm
Minimum Load Inductance	0 H	0 H
Torque Gain: Hall Mode Sinusoidal Mode	0.8 A/V 1.6 A/V	1.5 A/V 3.0 A/V
Bandwidth	20 kHz	20 kHz
Weight	.45 Lb (204.12 g)	
Recommended Chassis	EPS, LDP, PBS	

*All ratings with forced air cooling to maintain 40°C heat sink temperature. Failure to keep constant air flow to the heat sink will reduce the output current capacity and may result in damage to the unit.

PINOUTS

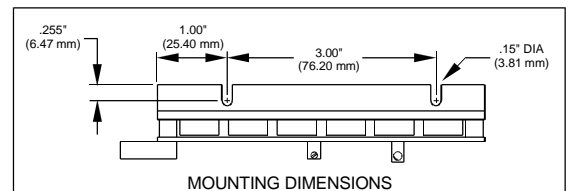
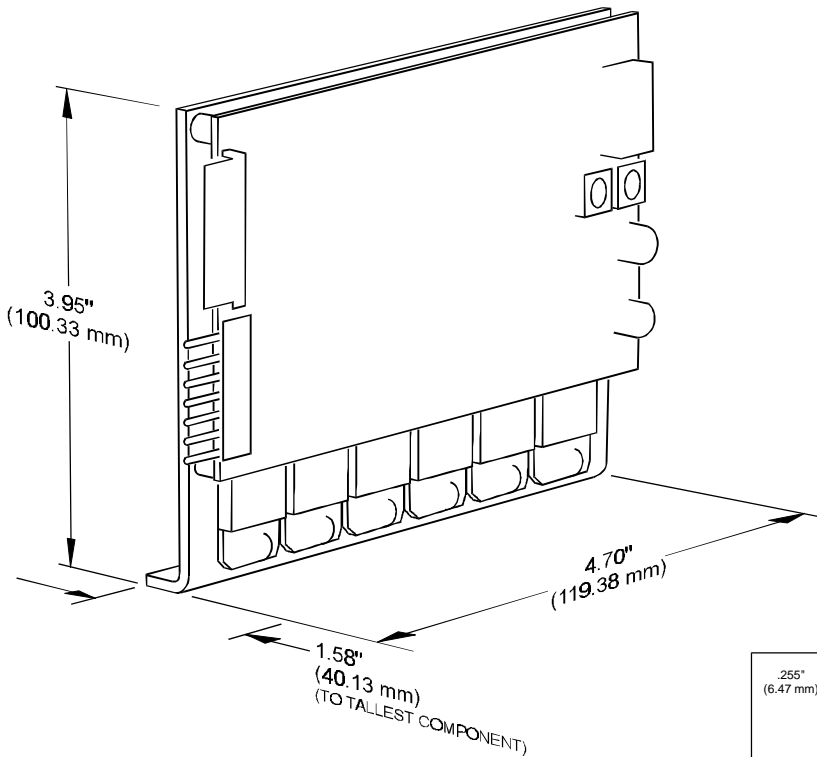
J1: SIGNALS

Pin	Function (Hall Mode Sine Mode)
1	-Command In Command Ph 1
2	+Command In Command Ph 2
3	No Conn. Command Return
4	- Limit In Amp Enable In
5	+ Limit In Amp Enable In
6	Amp Enable In
7	Optoisolator Power In (+12 VDC)
8	Hall Power Out No Conn.
9	Hall A Input No Connection
10	Hall B Input No Connection
11	Hall C Input No Connection
12	Hall Return No Connection

J2: MOTOR & BUS POWER

Pin	Function
1	Bus Ground
2	No Connection
3	Bus +V (20 to 40 VDC)
4	No Connection
5	Motor Phase 1
6	Motor Phase 2
7	Motor Phase 3

Consult User's Manual for jumper settings.



Ordering Information:

Product	Order Number
BLH-S1-4/8 Amplifier 40 VDC/8A Peak	WS-001-0001
BLH-S1-4/15 Amplifier 40 VDC/15 A Peak	WS-001-0002

Represented By:

