

DIVA AUTOMATION  
*Innovation in Motion*

# SuprAmpD Motor Driver

# **User Manual for SuprAmpD Driver**

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## Key features of SuprAmpD

- Designed as a companion to servo controllers that do not provide motor current drivers or do not accept differential encoder signals.
- LMD18200 PWM driver for motors requiring up to 3A and 55V. Short term requirements may extend to 6A.
- Limit switch support. When the positive limit switch is actuated, the motor drive is positively inhibited in that direction, and vice-versa.
- Optically-isolated limit switch inputs.
- Reference switch support. Differential Schmidt-trigger buffers.
- Selectable limit switch polarity.
- LED display of limit switch actuation status.
- Differential line receiver for differential to single-ended conversion of position encoder signals.
- LED display of encoder signal activity with Schmidt-trigger buffers.
- Accepts PWM sign and magnitude control signals.

# Connectors

## J2: Motor, Encoder & Limit (Supports Micos standard.)

DB-15	Function		DB-15
1	Encoder A+	Encoder B+	2
3	Index+	Ground	4
5	Reference switch	Motor +	6
7	Positive limit	Motor V+	8
9	Encoder A-	Encoder B-	10
11	Index-	5V	12
13	Stage brake	Motor -	14
15	Negative limit		



The limit switch inputs are direction dependent. The negative limit stops motion in the negative direction, only. The positive limit stops only positive motion!



Do not connect or disconnect motor or power leads with power applied!

## J1: Control I/O

IDC-10	Function		IDC-10
1	PWM Magnitude	5V	2
3	Encoder A	Encoder B	4
5	Ground	PWM Sign	6
7	Negative limit	Index/reference	8
9	Positive limit	Limit polarity	10

## J3: Power input

2-pin jack	
1	12-55V motor power
2	Motor power return



Ensure that the power supply output voltage does not exceed the maximum input voltage of the controller ( $V_{max}=5.5$  VDC)!

Wrong polarity of the power supply will damage the controller!

