

## FEATURES

- Uses output filter option for reduced PWM noise to adjacent circuits

## APPLICATIONS

- Vision Systems
- Low inductance coils
- Pancake motors

## THE OEM ADVANTAGE

- Reduced noise
- Minimum inductance requirements



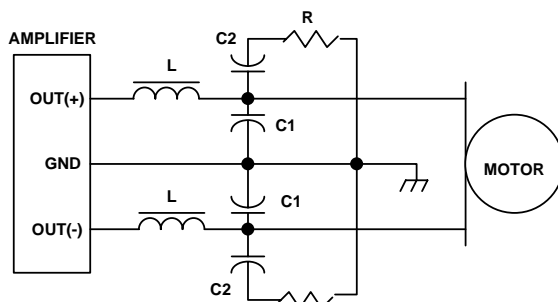
## FEATURES

The 4xx2 series amplifiers use the "P" option extended pins, that interface with the "M" option mounting board, with the "F" option output 'edge' filter. The Edge filter reduces the noise coupling of PWM outputs to adjacent cabling and circuitry.

The output filter card option uses the same connectors as the popular 300 series models ( 303, 306, 306A and variants ) for easy upgrading to the 4xx2 models.

The filter is a dual section L/C/R that slows down the switching 'edges' ( the rise and fall times of the outputs ) for greatly reduced coupling of PWM noise to nearby cables and circuit

## FILTER DIAGRAM

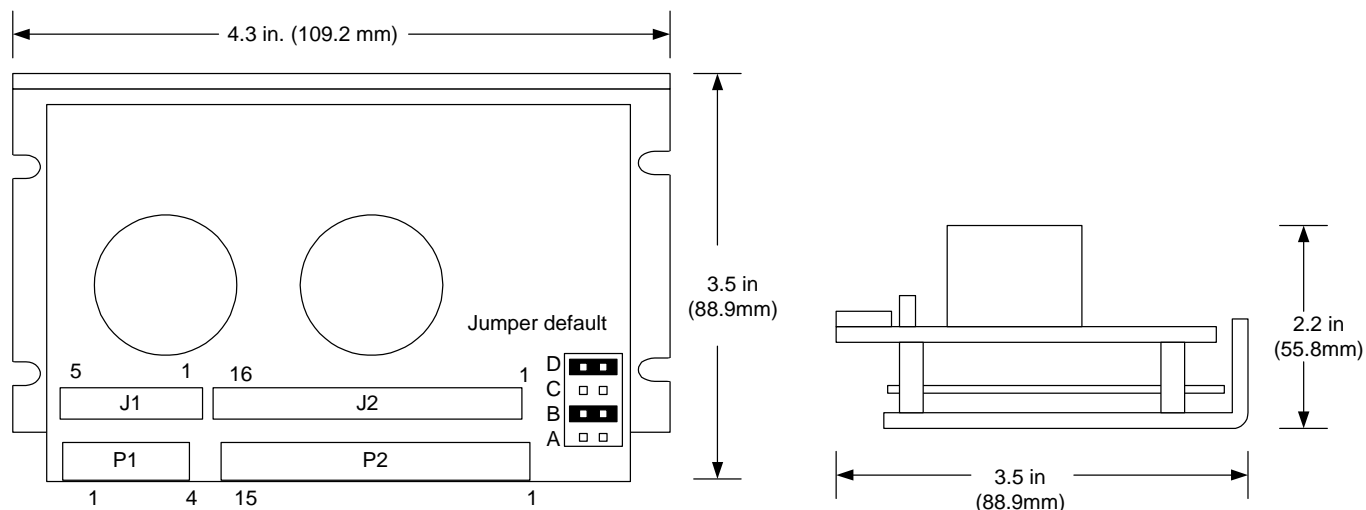


R L = 40uH, C1 = 3.3nF, C2 = 0.22uF, R = 68 Ohms, V buss = 80Vdc max. call factory if >Vdc.

## ORDERING GUIDE

Model 4122PMF	20A peak, 10A continuous, +22 to +80VDC filtered amplifier
Model 4212PMF	12A peak, 6A continuous, +22 to 80VDC brush motor
Model 4122DPMF	PWM/DIR input, 20A peak, 10A continuous, +22 to +80VDC filtered amplifier
Model 4212DPMF	PWM/DIR input, 12A peak, 6A continuous, +22 to 80VDC filtered amplifier
Model 4122zPMF	Zero Crossover, 20A peak, 10A continuous, +22 to +80VDC filtered amplifier
Model 4212zPMF	Zero Crossover, 12A peak, 6A continuous, +22 to 80VDC filtered amplifier

## DAUGHTER BOARD LAYOUT



With default jumper configuration, TACH INPUT, CURR REFF, and CURR MON are all available.

The PMF is pin for pin compatible with 300 series MB4, MB5 mounting boards. For MB4 PWM emulation move jumpers to A & C position. (Aux and Tach will not be available but, Curr Mon can still be measured at J2-8)

## CONNECTORS AND PINOUTS

**J1 & P1: MOTOR & POWER CONNECTIONS** (4 pin mating connector: Weidmuller BL4.12593.6)

J1 Pins	P1 Pins	Signal	Remarks
J1-1	P1-3	Motor (+)	Amplifier output to motor (+) winding
J1-2	P1-2	Motor (-)	Amplifier output to motor (-) winding
J1-3	P1-4	GND	Power supply return. Connect to system ground at this pin.
J1-4	P1-4	GND	Power supply return. Connect to system ground at this pin.
J1-5	P1-1	+HV	+HV DC power supply input

**J2 & P2 AMPLIFIER BOARD CONNECTIONS**(15 pin mating connector: Molex 22-01-2157, Pins: Molex 08-05-0114)

J2 Pin	P2 Pins	Signal	Remarks
J2-1	P2-5	+15V	+15V in series with 10kΩ
J2-2	P2-11	Gnd	Signal ground
J2-3	P2-13	-15V	-15V in series with 10kΩ
J2-4	P2-15	Ref (+)	Differential input positive terminal for Reference voltage
J2-5	P2-8	Ref (-)	Differential input negative terminal for Reference voltage
J2-6	P2-6	Tach (-)	Negative terminal of brush tachometer
J2-7	P2-11	Gnd / Tach (+)	Signal ground, or positive terminal of brush tachometer
J2-8	P2-12	Curr Mon	Output current monitor: ±6V output at ±peak output current
J2-9	P2-9	Curr Ref	Current demand signal to PWM stage: ±6V demands ±peak current
J2-10	P2-11	Gnd	Signal ground
J2-11	P2-3	/Enable	Amplifier enable input: enables or inhibits PWM switching at outputs Default: Gnd enables amplifier, open or +5V inhibits ( JP1 @ 2-3 ) For controllers that output +5V to enable amplifier, move internal jumper JP1 to pins 1-2 ( Gnd will inhibit, +5V or open will enable )
J2-12	P2-2	/Pos Enab	Gnd to enable output current in one polarity, open or +5V to inhibit Typically used with grounded, normally closed limit switches.
J2-13	P2-1	/Neg Enab	Gnd to enable output current in opposite polarity, open or +5V to inhibit. Typically used with grounded, normally closed limit switches.
J2-14	P2-4	/Normal	Current-sinking when amplifier enabled and operating normally. Goes to +5V when amplifier disabled or fault condition exists.
J2-15	P2-10	/Reset	Ground to reset overtemp or output short circuit latching faults. For automatic reset of faults every 200mS, ground permanently.
J2-16	P2-7	Aux	Single-ended auxiliary input.

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