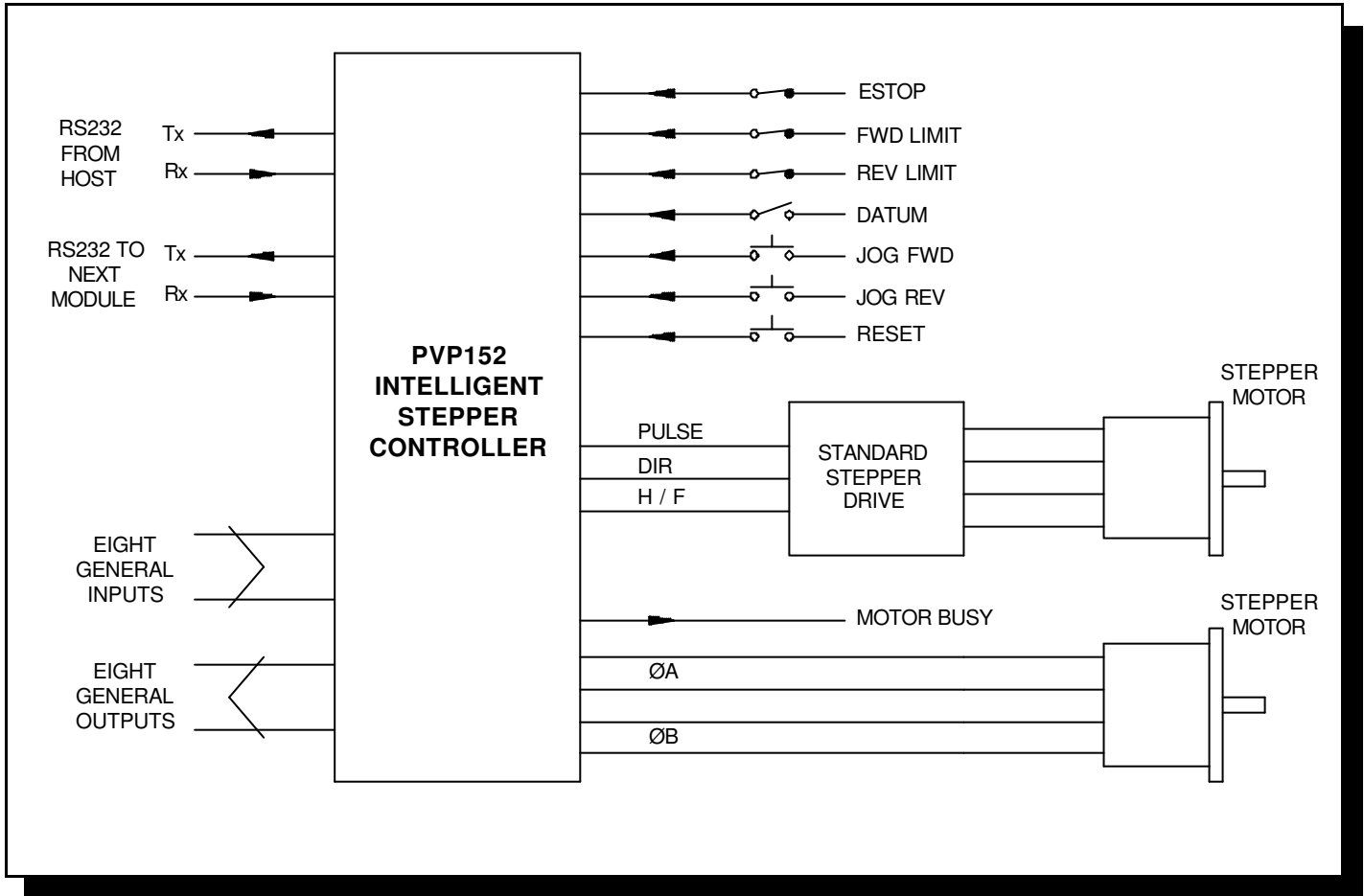


# PVP152 INTELLIGENT STEPPER MOTOR CONTROLLER WITH INTEGRAL DRIVE



The PVP152 is a microprocessor based single axis 'stand alone' motion controller with an integrated bipolar stepper motor drive.

Communication to a terminal or host computer is achieved over an RS232 link. In computer mode it is possible to daisy chain and control up to fifteen axes individually from one serial port.

An on-board bipolar 'chopper' stepper drive is provided capable of driving motors up to 1 Amp per phase in both full and half step modes. A standby motor power facility is also included should motor current need to be reduced at standstill. Should this on-board drive not be powerful enough for your application then conventional pulse, direction and full/half step outputs are also provided which are compatible with all of Alzanti's larger stepper motor drive cards.

Compatible Power Supplies and Backplanes are also available, please see separate data sheets for details.



## Mclennan Servo Supplies

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Alzanti have developed a comprehensive user-friendly Common Programming Language (CPL) and a summary of those commands implemented is listed below. When used in stand alone mode the User Program Sequence is safely stored in non-volatile EEPROM memory. A selection of utility programs are supplied with each module, for use on an IBM compatible PC, and allow I/O diagnostics to be performed and also stored programs to be uploaded, downloaded and printed. Pascal and C routine source code of some of these utilities are also provided for those wishing to write their own system interface software, however, Alzanti would be pleased to offer advice and quotations should custom control system software be required.

### Command Set

STOP	BACKLASH	HOME FWD	OUTPUT
STATUS	DELAY	HOME REV	OUTPUT MULTI
?INPUTS	ERASE	IF INPUTS	POS=
?MODE	END MOVE	JOG (n)	RANGE
?POS	FULLSTEP	NO JOG	READ
?SETUP	HALFSTEP	JUMP TO	RETURN
INSERT	GO (n)	LIST	START FWD
DELETE	GOSUB	LOOP TO	START REV
ACCEL	HELP	MOVE ABS	WRITE
BASE	HIGH	MOVE REL	

### Technical Data

**Logic Supply:** Regulated +5V dc  $\pm 0.25V$  at 500mA max.

**Drive Supply:** Smoothed, +12 to 36V dc with < 2V pk-pk ripple

**Drive Output:** Bipolar Chopped Constant Current, adjustable to 1 Amp per phase max.

**Serial Comms:** RS232 at 9600 baud only, 8 data bits, No parity, 1 stop bit

**Logic Inputs:** TTL & CMOS compatible with 10K $\Omega$  pull ups to +5V

**General Purpose Inputs (8):** TTL & CMOS compatible with selectable 10K $\Omega$  pull ups/downs

**General Purpose Outputs (8):** Current Sinking 100mA max each up to 30V dc

(Current sourcing also available by changing an IC)

**Control Outputs:** Step Pulse, Direction, Full / Half & Motor Busy

TTL Open Collector Outputs - 20mA, 30V maximum

**Maximum Move:** 16.7 million steps although values up to 2147 million steps are counted

**Maximum Step Rate:** 10KHz

**Board Size:** Eurocard - 160mm x 100mm x 20mm high

**Weight:** 180 grams

**Connector:** 64 way row a&b to DIN41612 style B

**Operating Temperature Range:** 0 to 40 °C