

## Stepper Motor Control Unit - SMCU



Designed to provide a highly VERSATILE Stand Alone Microprocessor Controller for Bipolar Stepper Motors, this product offers an economic solution to a wide range of Industrial Automation functions and other controlled rotation and manipulative processes.

### Special Features Include:

- 1) ASCII Command Programmable from any PC or Terminal via RS-232c port (9 pin D-Sub connector).
- 2) Flash-ROM Storage of up to 4 groups of 5,000 step commands and stand-alone operation once programmed.
- 3) Ramp-Up and Ramp-Down (acceleration) profiles adjustable to suit any practical combination of motor and load.
- 4) Signal & switchable I/O ports for remote command signals (up to 8 are available depending on model selected).
- 5) Interactive Switch / Dwell / Pause functions provide refined control sequences and system protection etc.
- 6) Optional remote operator panel for "Start, Stop, Pause, Re-Set" push buttons.
- 7) Optional inputs for Chopper Encoded signal. This version is recommended for some position critical applications.
- 8) Custom programming and packaging can be undertaken to suit special applications and environments etc.
- 9) New Zealand designed and manufactured. A servo motor option is also available for special applications.
- 10) Daisychaining options for complex applications requiring several interactive motors (using RS422 interface).

### General Specification: *(for physical details, see typical drawings on reverse of this data sheet)*

➔	<b>Step-Rates:</b> (subject to specific motor or motors)	<b>50~10,000 steps per sec.</b>
	<b>Programme Steps</b> (for single sequence )	<b>1~5000 (expandable)</b>
	<b>Interactive Input + Output Signals</b>	<b>4~8 I/O Signals</b>
	<b>Operator Local or Remote Control</b>	<b>4~6 switches &amp;/or lamps</b>
➔	<b>Ramp-Up / Ramp Down:</b>	<b>fully variable</b>
	<b>Pause / Dwell:</b>	<b>0~200 min.</b>
➔	<b>Command Language:</b> simple English characters	<b>ASCII (under Forth)</b>
	<b>Microprocessor Type / family</b>	<b>68HC11</b>
➔	<b>Fixing Holes:</b>	<b>2 or 4 Holes tapped M4</b>
	(DIN Rail option also available to order)	<i>(See drawing overleaf)</i>
➔	<b>Temperature Rating:</b>	<b>10~50 deg C ambient</b>
	(Relative Humidity)	<b>95% non-condensing</b>
➔	<b>Weight:</b>	<b>3 kg (typical)</b>
	<b>Size:</b> (Length x Width x Depth)	<b>250x193x55 mm (typical)</b>
	<b>Standard Packaging:-</b> (CASA's CB19 Instrument Box)	<b>Dust Proof / Drip Proof</b>

### Part Number: SMCU-xAX-yAzV-CE(special adder/suffix)

Please compose a Part Number according to this system and use on your official order.

<b>SMCU-</b>	Prefix to indicate "STEPPING MOTOR CONTROL UNIT"
<b>xAX-</b>	x = Number of Motors to be driven from this controller.
<b>yAzV-</b>	y = Max Amps z = DC supply Voltage of each Motor
<b>CE-</b>	Optional Support for "Chopper Encoder" (for positional feedback)
<b>(-----)</b>	Special adder or suffix for custom Software or environmental design etc.