

Stepper Motor Control Unit - SMCU



Images\EQUIP\CONTROL\MOTOR\SMCU\SMCU-32.WMF

CASA's stepper motor control unit provides a highly versatile stand alone microprocessor controller for a wide variety of standard 6 or 8 wire stepper motors.

This ingenious product offers an economic solution to a wide range of industrial automation functions including many 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) Daisy chaining 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 or enquire)*

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

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

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

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



Images\EQUIP\CONTROL\MOTOR\SMCU\SMCU-2.WMF



Image\EQUIP\CONTROL\MOTOR\SMCU\SMCU-6.WMF



Images\EQUIP\CONTROL\MOTOR\SMCU\SMCU-19.WMF

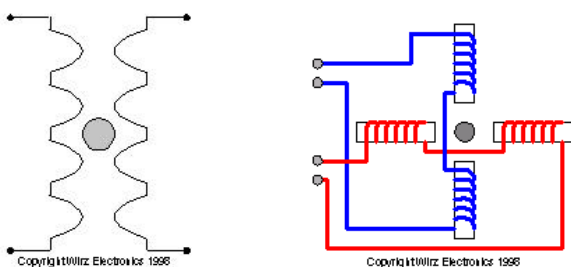


Images\EQUIP\CONTROL\MOTOR\SMCU\SMCU-P2.WMF



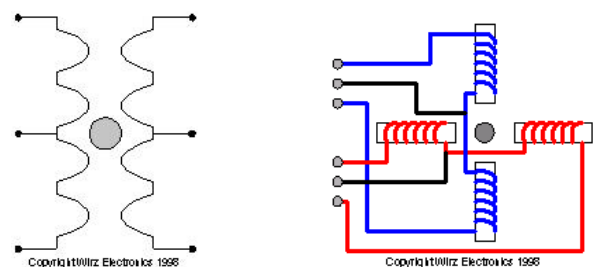
Typical Stepping Motors

Images\MOTORS\STEPPER\STEPPE-1.WMF



Typical Bi-Polar (2 phase) Stepping Motors

Images\MOTORS\STEPPER\BIPOLA-1.GIF



Typical Uni-Polar (4 phase) Stepping Motors

Images\MOTORS\STEPPER\UNIPOL-1.GIF