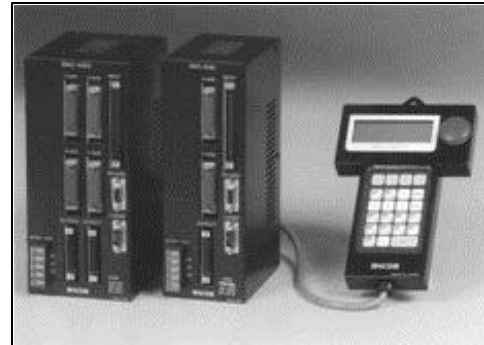


## SNC240 / SNC440

### 2 or 4 axes controller with Linear & Circular Interpolation

#### < Features >

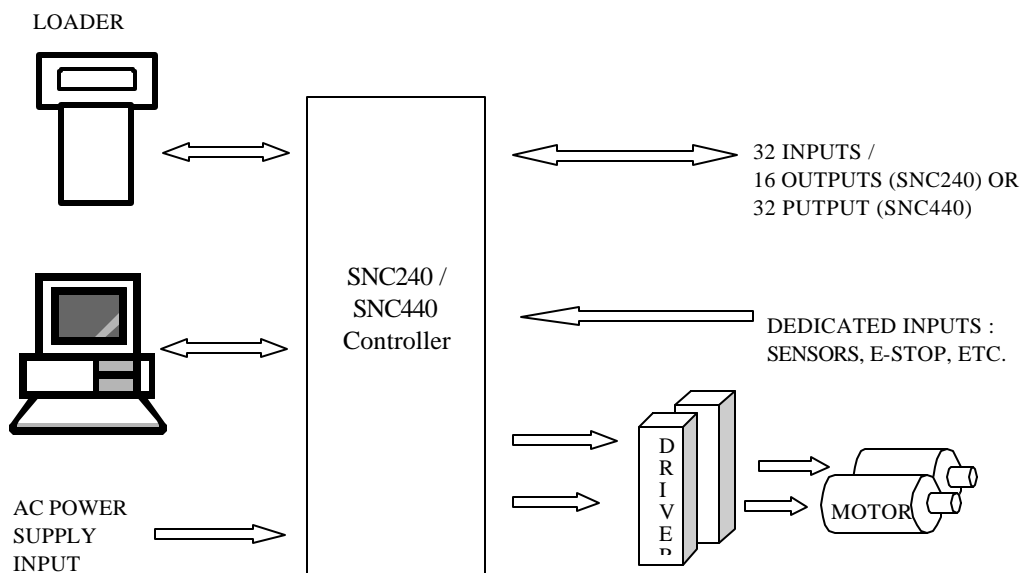
SNC240 ( 2 Axes ) or SNC440 ( 4 Axes ) controller can be used to control Point-to-point, linear and circular interpolation operation for the stepper motors or pulse train servo motors of the general purposes 2 axes or 4 axes tables. The acceleration of this controller can be switched between S-curve and linear acceleration. With the Scurve acceleration profile, smoother operation is made possible by eliminating vibrations.



Closed loop control with compensation is made possible with the use of built-in encoder inputs. Teaching operation is also available for up to 2,000 points. Co-ordinate operations, Palletizing, Complex trapezoidal drive, Backlash compensation and Sub-task functions are also built-in.

Programming is made simple via a handheld loader unit or via RS232C communication. The 32 general purpose inputs and 16 general purpose outputs can be used to interface to external peripheral for a more complex system control.

#### System Overview



ITEMS	DESCRIPTIONS
Control system	Microprocessor control system
Number of axes	SNC240 : 2 axes, SNC440 : 4 axes (PTP, linear or circular interpolation controlled )
Motors used with	Stepping motor or pulse train input servo motor
Program capacity	Program : 2,000 lines ( Main program : 16, sub-program: 84 ) Position data : 2,000 positions
Storage means	Flash Memory ( rewritable 100,000 times )
Programming language	Enhanced G-code
Control functions	Manual mode: Origin search, virtual origin set/return, coordinate specify feed, scan feed, index feed, step feed, I/O operation, sensor / driver signal operation, condition setting, position data storage Play mode : Program running ( automatic execution, 1-line execution, external activation, online execution ), moving positional data Program mode: Generation, editing, and deleting programs and positional data, teaching, uploading and downloading Parameter : Motor types, sensor logic, encoder set up, etc.
Program functions	<ul style="list-style-type: none"> <li>◆ Set up conditions</li> <li>◆ return to origin</li> <li>◆ setting up the quantity of index</li> <li>◆ moving instruction</li> <li>◆ general purpose I/O</li> <li>◆ repeats</li> <li>◆ subroutines</li> <li>◆ end of program</li> <li>◆ virtual origin setting</li> <li>◆ timer</li> <li>◆ temporary stop of program</li> <li>◆ coordinate system switching</li> <li>◆ palletizing operation</li> <li>◆ complex trapezoidal drive</li> <li>◆ unconditional jump</li> <li>◆ driver control operation</li> <li>◆ register mathematical operation</li> <li>◆ register conditional jump</li> </ul>
Acceleration system	S-curve drive ( 8 types ), linear drive
Pulse scaling factor	The amount of movement per pulse : 1~9,999,999
Command system	Loader input / Host computer / external activation signal
Movement range	The range of setting 1 moving instruction : 0~±9,999,999
Frequency range	Low speed : 1~65.535 Kpps in 1pps interval Standard : 12.5~819.187 Kpps in 12.5pps interval High Speed : 50~3,276.75 Kpps in 50pps interval
Acceleration	Low speed : 10~ 1,000 pps/msec for 100% setting ( 0.1% interval ) Standard : 125~125,000 pps/msec for 100% setting ( 0.1% interval ) High speed : 500~500,000 pps/msec for 100% setting ( 0.1% interval )
Driver Interface	Clock output: 2-clock or 1-clock system ( open collector or Line driver ) Motor OFF output: CO for stepper or SERVO ON for servo Alarm input: selectable logic In-position input: for servo Deviation counter reset output: for servo motor 1-shot pulse: 0.1 sec Encoder input: A/B/Z phases ( Multiple of 1/2/4 is possible )
Machine sensor I/F	Both end over-run, near origin, and origin sensor (selectable sensor logic )
General Purpose I/O	32 Input : Photo-coupler isolated 5mA internal power supply (+24V) 16 Output : Photo-coupler isolated, open collector 0.5A voltage resistance: 35V
Dedicated I/O	6 Inputs : Photo-coupler isolated 5mA internal power supply (+24V) Program activation input, emergency stop input, deceleration/stop input, RESET input, manual operation input, origin return input 4 Output : Photo-coupler isolated, open collector 0.5A voltage resistance:35V, ready output, output while moving, error output, origin position

Program selection input	4 Inputs : Photo-coupler isolated 5mA internal power supply is used. 16 programs can be triggered ( program #0~15 )
External communication I/F	RS232-C : 1 channel parameter can be set up
Setup DIP switch	Parameter operation : permitted / prohibited
Parameter functions	<ul style="list-style-type: none"> <li>◆ Set up the amount of movement for 1 pulse</li> <li>◆ Software limit are set up</li> <li>◆ Conditions for automatic operation are set up</li> <li>◆ Conditions for origin return is set up</li> <li>◆ Position of decimal point for coordinate display</li> <li>◆ Origin return axis sequence is set up</li> <li>◆ Closed control is valid or invalid</li> <li>◆ Multiplication ratio and direction of encoder input are set</li> <li>◆ Motor types and sensors are set</li> <li>◆ S-curve slope (including pattern) / linear slope</li> <li>◆ RS232C parameter is set</li> <li>◆ Highest speed is set</li> <li>◆ Auto return to origin before activating program can be set</li> <li>◆ Contents of execution to be displayed or not displayed during execution</li> <li>◆ Backlash compensation can be valid or invalid</li> <li>◆ Memory clear</li> </ul>
Input power supply	Single Phase AC 85V ~ 264V ( 100W maximum power consumption )
Noise resistance	1500V/1usec or more ( Single controller )
Momentary stoppage	20msec minimum ( when the loader input is stopping for emergency )
Ambient environment	During operation : Temp 0~50°C ( Humidity : 30~80%,No dew condensation ) During storage : Temp 0~60°C ( Humidity : 20~90% )
External dimension ( excluding mounting bracket )	SNC440 : 100 (W) x 225 (H) x 122 (D) mm SNC220 : 80 (W) x 225 (H) x 122 (D) mm Loader SNC440PL : 125 (W) x 194 (H) x 25 (D) mm
Weight	SNC440 : 2.0 Kg SNC240 : 1.5 Kg Loader : 0.5 Kg

### Ordering Information :-

