



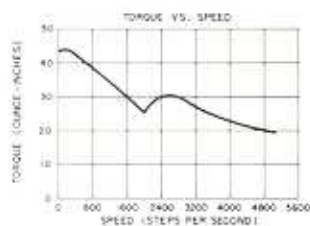
## 3K and 5K SLO-SYN® PRESET INDEXERS

The 3K and 5K SLO-SYN Preset Indexers drive SLO-SYN Precision Stepping Motors in indexing and other positioning applications. The units will drive the motors at rates up to 3000 or 5000 steps per second, depending on model. Decade counter controls on the front panel allow the operator to select the desired positioning movement. When the index command is given, the unit will ac-

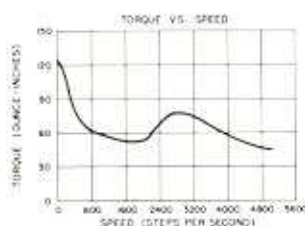
celerate the motor and drive it at the desired rate until a specific number of steps remains of the preselected count. At this point the unit decelerates the motor, stopping it exactly at the selected point. The unit then actuates a relay to control any external equipment needed for related operations. Figures 1 through 4 show the loads the motors can drive at various speeds.

### SPEED-TORQUE CHARACTERISTICS

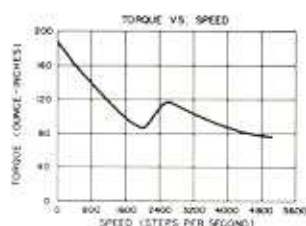
(ONE STEP EQUALS 1.8°)



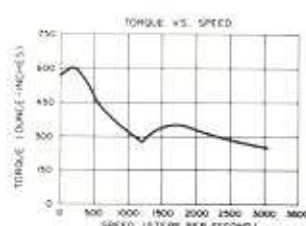
HS25B MOTOR  
FIGURE 1



HS55 MOTOR  
FIGURE 2



HS55L MOTOR  
FIGURE 3



HS450 MOTOR  
FIGURE 4

### BACKLASH TAKE-UP CIRCUIT

Backlash board BHM144087-G4, ordered separately, can be plugged into a receptacle on the indexer chassis to add backlash compensation capability. The board provides three operating modes. In mode one there is no backlash take-up. Mode two compensates for backlash by always approaching a position from the same direction. In the third mode, the operator can dial-in the actual backlash present in his system and the indexer will add this to the positioning movement whenever the direction of travel is changed. A maximum of nine motor steps, 16.2°, can be compensated for in mode three.

### COMPUTER CONTROL

All 3K and 5K SLO-SYN Preset Indexers have provision for TTL compatible computer control. The indexer functions can also be

remotely controlled from an external set of shorting decade switches or relays. In both cases, the information must be inserted in BCD form and must be present for 2 milliseconds before an index command is given. Momentary contact closures with a minimum duration of 150 microseconds are required to Start Index or to Stop Count and Reset.

### SPECIFICATIONS

TEMPERATURE ..... Operating: 0°C to 40°C  
Storage: -55°C to 85°C

EXTERNAL RELAY CONTACTS .....

### MODELS

PRESET INDEXER MODEL	TYPE OF MOUNTING	COUNTING RANGE	USE WITH MOTOR TYPES	AC INPUT
HPI 145RTX	RACK	0 to 9,999	HS25B, HS55, HS55L (must be ordered separately)	200-240 volts, 1.75 ampere, 50/60 hertz
HPI 145TX	CABINET			
HPI 155RTX	RACK			
HPI 155TX	CABINET	0 to 99,999	HS450 (supplied)	200-240 volts, 3.0 ampere, 50/60 hertz
HPI 143RX	RACK			
HPI 143X	CABINET	0 to 9,999		
HPI 153RX	RACK	0 to 99,999		
HPI 153X	CABINET			

The right to make engineering refinements on all products is reserved. Dimensions and other details are subject to change. When dimensions are critical, detailed drawings should be obtained from the factory.



**SUPERIOR ELECTRIC  
NEDERLAND N.V.**

Koperwerf 33

**The Hague, Netherlands**

Telephone: (070) 679590

Telex: 31436 Super nl

SE-L4717E

Cable address: SUPELEC

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