



Precise Rotary Motion with Minimal Footprint

Accurate research findings require the use of precise, safe, and reliable testing equipment. Neuro Kinetic's small animal rate table system is designed to provide a cost effective, comprehensive, digital rotary motion package with an incredibly small footprint. The new system provides researchers a compact, affordable solution allowing increased flexibility in designing and setting up experiments with small animals.

The system uses a direct drive, hollow shaft, synchronous high torque servomotor with integrated 12 line slip ring, high resolution serial encoder, and bearing system to create the rotational stimulus. Direct connection to the load increases torsional stiffness. Control electronics are housed in a 24" x 24" x 12" cabinet. The rotation drive features velocity, force/torque and position control, encoder emulation, electronic dynamic brake, limits and protection. Included software allows electronic tuning and provides an on screen scoping function.



Key Features and Benefits

Digital Motor Set - low torque ripple for precise control (accurate accuracy ± 15 arc-sec); motor tuned through the software reducing the cost of operation. Features backlash free operation with no audible noise.

Affordable, Complete Package - comprehensive package includes motor set, digital drive and control electronics, encoder and slip ring; making it easier to get started.

Compact Design - The small footprint reduces floor place for conducting experiments and allows greater design flexibility.



Specifications - A, B, and C Series

Torque (continuous/peak)	A: 18/53 in. lb.	B: 44/132 in. lb.	C: 62/185 in. lb.
Housing Dimensions	A: 5.31" OD, 10" H	B: 5.31" OD, 12" H	C: 5.31" OD, 15" H
Weight	A: ~12 lb.	B: ~15 lb.	C: ~18 lb.
Velocity	up to 1,200 deg/sec (standard slip ring limits velocity to 600 deg/sec)		
Acceleration	up to 45,000 deg/sec ²		
Accuracy of Speed Control	$\pm 0.1\%$ full scale		
Accuracy of Accel. Control	$\pm 0.1\%$ full scale		
Torque Ripple	1%, 1:1 inertia match, motor to load		
Command and Feedback	velocity (analog), torque (analog) and position (digital)		
Encoder	single turn absolute, 20 bits per second (1,048,578 lines per revolution)		
Absolute Accuracy	± 15 arc seconds		
Control Cabinet Dimensions	24" x 24" x 12"		