

UTEX Brushless Servo Manipulator



Description

- A small form factor, brushless servo motor manipulator with encoded positioning and limit sensors
- Contains an electrically isolated, submersible UHF connector for connecting Immersion UT probes
- Additional probe mounting options available (Multi-probe, mirror, phased array)
- Driven using a pair of brushless servo amps (Bi-polar supplied +/-15VDC)
- Brushless servo amplifiers accept +/- 10VDC motor command signals
- Servo tuning values provided for Galil Motion Controllers

Dimensions

Motor canisters: 41mm Dia. (1.61") x 65mm Long (2.56")

Overall: 133mm Wide (5.23") x 122mm Tall (4.8") x 100mm Deep (3.94")

Mounts to 1.0", 1.5" and 2.0" Search tubes (Specified when ordering)

Motor(s)

Gear Ratio: 100:1

Encoder: 2000 Counts per Motor Revolution (200,000 counts per output shaft revolution) via 5V TTL

Max Speed at output shaft: 100 RPM

Maximum Torque at output shaft: 1.4Nm (12.39 lb-in)

Continuous Torque at output shaft: 0.6Nm (5.30 lb-in)

Capable load at 90 degrees: ≈2Kg @ 69mm (2.7" arm)

Voltage: 24VDC Maximum (+/- 10%) Kit includes +/- 15VDC supplies

Max Current: 1.7 Amps

One-Way Positional Accuracy: 3 arc minutes (0.05°)

Limit / Home Sensors

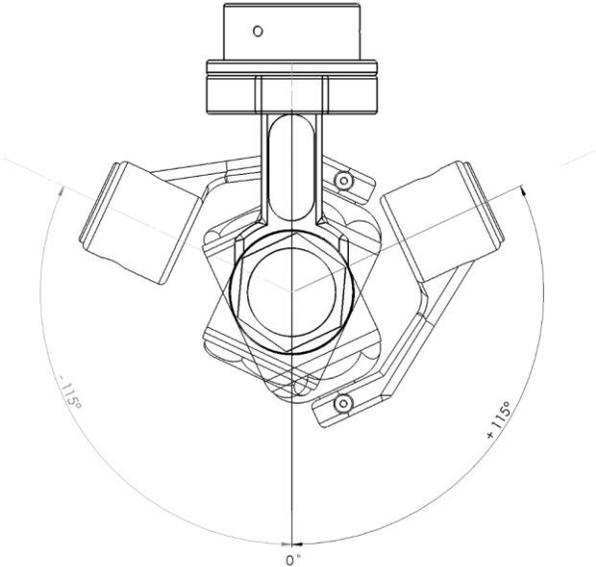
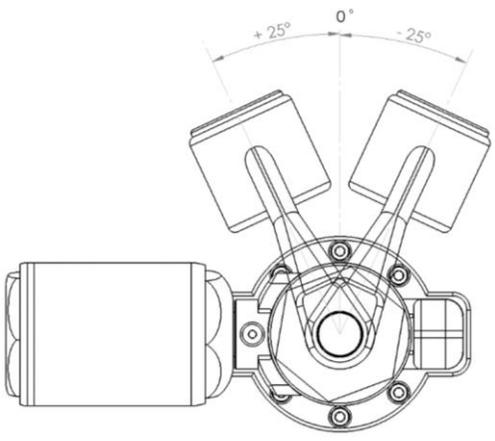
Voltage: 10-30VDC (supplied from Kit +/- 15VDC supplies)

Output Current: ≤ 100 mA

Kit Includes

- 1 Dual Servo Manipulator
- 1 Search tube adapter – for 1", 1.5", or 2" Search tube OD
- 1 amp assembly containing 2 LA-210 amplifiers
- 1 pair of 15VDC power supplies (+/-) for amplifier bias and limits
- 1 pair of 15VDC power supplies (+/-) for motor power
- Wiring harnesses and connection diagrams
- Tuning parameters and setup instructions for use with a Galil Motion Controller

Operations

<p>A-Axis</p> <p>Range of Motion: +/- 115°</p> <p>Speed: 240°/s Maximum 90° /s Normal</p>	 <p>The diagram shows a top-down view of the dual servo manipulator. A vertical line represents the 0° position. Two curved lines indicate the range of motion, labeled as -115° on the left and +115° on the right.</p>
<p>B-Axis</p> <p>Range of Motion: +/- 25°</p> <p>Speed: 240°/s Maximum 90° /s Normal</p>	 <p>The diagram shows a side view of the dual servo manipulator. A vertical line represents the 0° position. Two curved lines indicate the range of motion, labeled as +25° on the left and -25° on the right.</p>