

AVL TECHNOLOGIES

Scientific Antenna Positioners



	<u>Model 1220</u>	<u>Model 1520</u>	<u>Model 1820</u>	<u>Model 2420</u>
Primary Drive – Roto-Lok®	Zero Backlash	Zero Backlash	Zero Backlash	Zero Backlash
Az/El Secondary Drive	Low Backlash	Adj. Backlash	Adj. Backlash	Adj. Backlash
Az/El Positioning Accuracy				
System Backlash	.02-.04°	.002-.006°	.002-.006°	.002-.006°
Absolute Available	.02 to .3°	.02 to .3°	.02 to .3°	.02 to .3°
Resolution Available	.01 to .1°	.01 to .1°	.01 to .1°	.01 to .1°
<u>Azimuth Axis</u>				
Range	400°	240°	270°	400°
Drive Speed (deg/sec)	.1 to 10	.1 to 10	.1 to 10	.1 to 10
Capacity at 1° /sec (ft-lbs)				
Maximum	650	1465	1000	2,000
Drive Continuous	300	255	550	1,000
Drive Peak	500	456	830	750
Stiffness (ft-lb/rad.)	1.5 x 10 ⁴	9 x 10 ⁴	7.5 x 10 ⁴	1.5 x 10 ⁵
<u>Elevation Axis</u>				
Range				
Standard	0°-160°	0°-110°	0°-160°	0°-160°
Optional	-5°-185°	-30° -160°	-5°-185°	-5°-185°
Drive Speed (deg/sec)	.1 to 5	.1 to 5	.1 to 5	.1 to 5
Capacity at 1° /sec (ft-lbs)				
Maximum	1,200	2,400	2,750	8,000
Drive Continuous	500	1800	1,500	3,200
Drive Peak	650	2500	2,200	5,000
Stiffness (ft-lb/rad.)	5 x 10 ⁴	1.1 x 10 ⁵	1.5 x 10 ⁵	4.2 x 10 ⁵
<u>Add Third Axis to get</u>	<u>Model 1230</u>	<u>Model 1530</u>	<u>Model 1830</u>	<u>Model 2430</u>
<u>Roll/Polarization Axis</u>				
Range	400°	400°	270°	400°
Drive Speed (deg/sec)	.1 to 5	.1 to 5	.1 to 5	.1 to 5
Capacity (ft-lbs)				
Maximum	650	650	650	650
Drive Continuous	300	300	300	300
Drive Peak	500	500	500	500
Positioning Accuracy	0.3°	0.3°	0.3°	0.3°
Stiffness (in-lb/rad.)	1.5 x 10 ⁴	1.5 x 10 ⁴	1.5 x 10 ⁴	1.1 x 10 ⁵
Standard Drive Motors	24 VDC	36 VDC	36 VDC	36 VDC
Weight	75 lbs.	140 lbs.	200 lbs.	400 lbs.