MOOG | SPACE | SPACECRAFT MECHANISMS | TYPE 11 BIAXIAL GIMBAL

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The Type 11 biaxial gimbal as shown consists of two Type 1 actuators in an orthogonal combination. The Type 1 actuators can be provided with a variety of options. These gimbals can be used for two-axis antennae or solar array drives. A variety of applicationspecific options can be implemented, including slip rings, RF rotary joints, cable management Type 11 Biaxial Gimbal systems, hard stops, and launch locks. Interfaces can be adapted to

fit the application both mechanically and electrically. Where the Type 1 actuator is not suitable for both axes, please keep in mind that actuators of different sizes can be mixed [n a biaxial configuration (such as a Type 21 Biax for instance) if required.









TYPE 11 BIAXIAL GIMBAL

PERFORMANCE SPECIFICATIONS

Specification	Units	Basis	Data
Output Step Angle*	Degrees	Standard	.0375
Steps/ Revolution*	_	Standard	9600
Harmonic Drive Ratio*	_	Standard	100:1
Output Step Rate*	Step/Sec (Deg/Sec)	Maximum	250 (9.375)
Power*	Watts	Nominal	5
Output Torque*	lb-in	Typical	70
	N-m	Typical	8
Holding Torque Powered*	lb-in	Typical	70
	N-m	Typical	8
Unpowered*	lb-in	Typical	20
	N-m	Typical	2.26
Moment Stiffness in the AZ-EL Plane	lb-in/rad	Typical	30,000
	N-m/rad	Typical	3,390
Perpendicular to Plane	lb-in/rad	Typical	15,000
	N-m/rad	Typical	1,695
Output Flange Load Capacity Axial	lb	Maximum	350
	Ν	Maximum	1,556
Transverse	lb	Maximum	400
	Ν	Maximum	1,779
Moment	lb-in	Maximum	540
	N-m	Maximum	61
Total Assembly Weight	lb	Typical	2.9
	kg	Typical	1.32

* Total Assembly Weight

Please contact Moog application engineers to discuss optional actuator performance requirements.



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