

MODEL-20 SERVO PAN & TILT GIMBAL

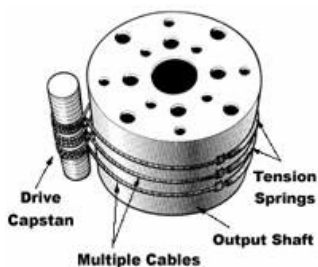
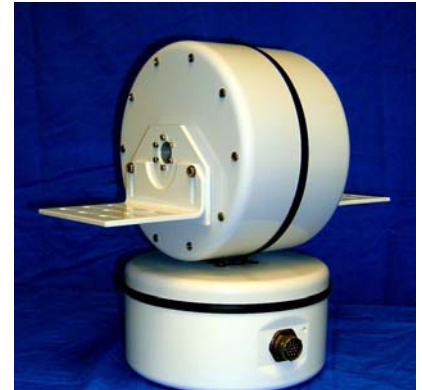
IDEAL FOR CAMERA, ANTENNA OR INSTRUMENT POSITIONING

The Model-20 Servo Pan & Tilt Gimbal features Sagebrush's patented Roto-Lok® rotary drive to provide freedom from backlash, ultra-smooth motion, high resolution control, and reliability that cannot be achieved with competitive gear driven Pan & Tilt gimbals.

This model gimbal utilizes an on-board microprocessor for closed-loop control of servo motors. Positioning information is obtained from encoders on the motor shafts and is transmitted to and from the gimbal via a serial interface. On-the-fly speed and direction changes are supported by the Model-20 Servo. Motion commands to a defined position are accomplished by automatic vectoring of the Pan & Tilt axes, or by individual speed and direction control of each axis. Optionally, the gimbal software supports multiple communication protocols. Direct joystick control (no PC required) is also available.

Power and payload controls are available for a variety of applications. For camera applications, the Model 20 supports a fully integrated lens control module, which provides programmable zoom and focus position settings. Two auxiliary serial ports are available for additional payload control options.

The Model 20 Servo Pan & Tilt gimbal provides precision performance, reliability, flexibility, and the ability to operate in harsh environments.



ROTO-LOK®

FEATURES

- **20 lb Payload Capacity**
- **Dual Payload Shelves**
- **0.004° Positioning Resolution**
- **Zero Backlash**
- **Wide Angular Coverage**
- **No Maintenance Required**
- **Quiet Operation**
- **120°/Sec Slew Rates**
- **32 Programmable Presets**
- **Several Mounting Options**
- **RS-232/422 Communications**
- **Balanced Payload**
- **Weather Resistant**
- **24 Volt DC**

SPECIFICATIONS FOR MODEL 20 SERVO PAN & TILT GIMBAL

We reserve the right to change these specifications at any time.

Height	13" (330 mm)
Width	8.8" (223.5 mm)
Depth	8.4" (213.4 mm)
Weight	13 lbs (5.9 Kg)
Payload Capacity	20 lbs (9 Kg) (balanced on CG)
Max Inertia	Pan <547 lb-in ² (<0.16 Kg-m ²), Tilt <547 lb-in ² (<0.16 Kg-m ²)
Travel Range (Azimuth)	360° non-continuous (+/-180°)
Travel Range (Elevation)	+95° to -35° from horizontal
Travel Rate (Max)	120°/sec
Positional Resolution	0.004°
Input Power	24VDC
Power Usage	140 Watts, 8 Watts nominal
Power & Data Connector	MIL-C-5015 Connector (mating connector supplied)
Controller Interface	PC (standard serial interface)
Payload Power	2 amps @ 12 VDC
Payload Wiring	Internal from base connector thru both axes to payload
Payload Shelves	Adjustable to balance payload CG
Color	White Powder Coat; other colors available
Motor Type	24 V DC with Integral Encoder
Motor Controller	32-bit microprocessor on-board the gimbal
Communication	RS-232 or RS-422 (specify with order)
Communication Ports	Two additional RS-232 comm ports included
Lens Control	Internal programmable controller for zoom and focus
Manuals	Installation, Operating and Maintenance
Routine Maintenance	None required
Warranty Period	One year (if operated according to instructions)
Operating Temperature	-20°F (-30°C) to +158°F (70°C)

OPTIONS

Payload Cable Installed	Factory Installed power, communication, and/or video
Heavy Duty Pan Axis Bearing	Added durability for shock/vibration environments
Optional Finish Color	Specify desired color in paint or powder coat



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