

Aero 20 Stabilized Gimbal

IDEAL FOR AIRBORNE THERMAL IMAGING AND CAMERA APPLICATIONS

The Aero 20 Gimbal features Sagebrush's Roto-Lok[®] rotary drive to provide a low backlash design, ultra-smooth motion, high-resolution control, and reliability that cannot be achieved with competitive gear driven gimbals. The payload housing can be adapted to accommodate a variety of camera, sensor, or antenna payloads.

The gimbal utilizes an on-board microprocessor and servo motors combined with rate sensors on each axis for precise motion and position control and gyro-stabilization. Positioning information is transmitted to and from the gimbal via a serial interface that can support a variety of communication protocol formats.

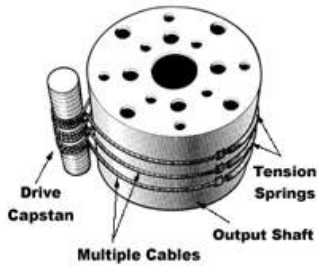
The Aero 20 gimbal is designed to provide precision, reliability, and flexibility in airborne environments.

This gimbal requires FAA 337 or aircraft-specific STC approval.



SPECIFICATIONS FOR AERO 20 STABILIZED GIMBAL

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



ROTO-LOK[®]

FEATURES

- **20 lb Payload Capacity**
- **Gyro-Stabilized**
- **Zero Backlash**
- **Adaptable to many aircraft mounts**
- **Flexible Sensor Configurations**
- **RS-232/422 Communications**
- **Joystick Compatible**
- **Low cost alternative for IR/Video/RF payloads**
- **28 Volt DC**

Height	20.0" (508.0 mm), nominal
Width	16.0" (406.4 mm), nominal
Depth	20.0" (508.0 mm), nominal
Weight	45.5 lbs (20.68 Kg)
Payload Capacity	20.0 lbs (9.1 Kg) nominal; balanced about the axes
Travel Range (Azimuth)	240° Non-continuous (+/-120°)
Travel Range (Elevation)	+15° to -105° from horizontal
Travel Rate (Max)	60°/sec AZ, 60°/sec EL
Acceleration (Max)	1 rad/sec ² AZ, 1 rad/sec ² EL
Positional Resolution	0.05°
Input Power	28 VDC
Power Usage	<280-Watts nominal
Power Connector	MIL-C-38999 (mating connector supplied)
Controller	PC Interface (standard serial)
Controller Connector	MIL-C-38999 (mating connector supplied)
Color	Black
Motor Type	24 VDC Servo motor
Motor Controller	32-bit microprocessor on-board the gimbal
Communication	RS-232 or RS-422 (specify with order)
Communication Ports	Two additional RS-232 ports included
Maximum Data Rate	Up to 115,000 Baud
Manuals	Installation, operating, maintenance instructions
Routine Maintenance	None required
Warranty Period	One year (if operated according to instructions)
Operating Temperature	14°F (-10°C) to +104°F (40°C)
Operating Altitude	10,000 ft (3048 meters) MSL Maximum
Operating Airspeed	70 Knots Maximum

OPTIONS

Joystick Control	Serial joystick connects directly to the gimbal
Custom Hand Controller	Can support gimbal and payload controls
Video Overlay of Position	Supports On-Screen display of AZ/EL position



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