

PV Labs designs and manufactures gimbals that provide best in class performance while also operating in the most demanding environments. The PV-18 utilizes PV Labs proprietary Gen-V technology to create an open architecture design that provides customers with ease of sensor integration, full meta-data support and geo-pointing to suit the needs of the most demanding applications. When you choose the PV-18, you are getting more than a stabilized platform—you are getting over 30 years of experience in delivering industry leading quality and performance as well as expert support.

Key Benefits

- 3 axis stabilization; ≤ 4 microradian jitter performance on all fixed and rotor wing aircraft
- Larger payload volume than all other systems in class
- Open Architecture;
 - Available for custom sensors;
- Best in class durability and maintainability;
 - Core components are user serviceable; line replaceable or shop replaceable units



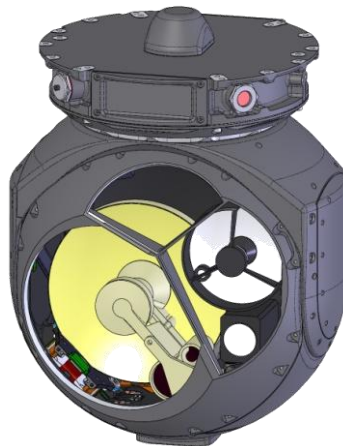
Specification	PV-18
Gimbal Dimensions (Dia. x H)	18" Dia. Dome x 21"
Gimbal Weight (without payload)	<70 lbs (+ external gimbal cables)
Payload Weight/Volume	50 lbs (typ.) 100 lbs (max)/1800 in ³ (Inside gimbal dome enclosure)
Add'l Payload Electronics Volume	99 in ³ (inside gimbal bulkhead)
Power Requirements	<280 W (Typ), 1400W (Max) per MIL-STD 704
Steering and Stabilization	
Axes of Stabilization	5 axes: 3 internal/2 external (azimuth/elevation)
Stabilization Performance (inner axes)	3 axis Stabilization; $\leq 4 \mu\text{R}$ RMS Jitter ¹
Range of Travel	Yaw 360° continuous (turret configuration)
	Pitch $\pm 110^\circ$
	LOS $\pm 1^\circ$ (with step-stare capability)
Slew Rate	Yaw $\geq 100^\circ/\text{s}$
	Pitch $\geq 100^\circ/\text{s}$
Maximum Acceleration	$\geq 300^\circ/\text{s}^2$
Vibration Isolation	Active; $F_N = 10\text{-}20 \text{ Hz}$
Geo-Pointing	+/- 1.5 mrad pointing accuracy

Environmental	
Temperature Range (Operating)	-40°C to +50°C (wider temperature ranges available on request)
Temperature Range (Non-operating)	-55°C to +71°C
Altitude – maximum (Subject to temperature limits)	30,000 ft
Airspeed – maximum (Non-operating/operating)	425 knots IAS / 350 knots IAS
Load Resistance – Shock / Crash Safety	6g for 20 ms / 10 g for 11 ms
Environmental Systems	Breather and desiccant systems
Features	
GPS Interface	OEM 6 (externally mounted)/SAASM Compliant Available
Gimbal Control Interface	Graphical User Interface/Gimbal API/Console/Joystick
Line of Site Meta-Data	Yes; (Nav-GPS, mount/earth LOS angles, BIT, target position, UTC)
Included Components	Shipping Container + External Gimbal Cables + Test Stand + GUI
Mounting Options	The PV-18 may be mounted in any attitude
Maintenance	All core electronics modules accessible on flight line
Options	
Special Gimbal Operating Modes	Step Stare/Motion Compensation (Forward/Rotational); Line Tracking; Path Tracking
Interface Software Development Kits	Remote Control Interface (RCI) Computer Graphics Interface (CGI)
Thermal Management	Heater Modules, Heat Exchanger, Circulating Fans
Service and Support	
Warranty	12 months/5,000 hrs
Training Available	Operation/Maintenance (Line Replaceable and Shop Replaceable Units)

Gen-V Product Family



PSI Vision 3000
Wide Area Motion Imagery Sensor



Multi-Sensor EO/IR



mini-Eclipse (6 axis)

Product Availability	6 mos ARO	Additional Information	www.pv-labs.com
Pricing	Call for quotation	Contact Information	sales@pv-labs.com