

PTS06 Series (Double Axis)



Our PTS06 Pan-Tilt Positioners (EL/AZ Type) are designed and manufactured as providing high positioning accuracy, smooth operation, longevity and reliability. In addition, they manage to deliver high torque characteristics with low weight. PTS06 series have been developed especially for accurate positioning of antennas and electro-optical sensors.

All PTS06 Series Positioners are equipped with stepper motors, precision gearboxes and bearings, high resolution encoders with positional feedback. They are also configurable with selectable options.

Complete series of the units are ruggedized and suitable for outdoor applications, ensuring trouble-free operation.

APPLICATIONS

- Angular Positioning for General Purpose Applications
- Antenna / Electro-Optical Sensor Positioning
- Tracking
- Border Security and Surveillance
- Anechoic Chamber Applications
- Far-Field & Near-Field Antenna Measurements

KEY FEATURES

- Step Motor Powered
- High Angular Positioning Accuracy
- Complies MIL-STD-810F Requirements
- Lightweight, Rugged Design
- Durable Marine-Grade Finish
- Wide Operating Temperature Range
- Positional Control Software
- RS485 Communication, Closed Loop Control



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TECHNICAL SPECIFICATIONS		
Product Designation	PTS06-N025/050	PTS06-N050/100
Azimuth and Elevation		
Delivered Torque	4,5 Nm (AZ) - 9 Nm (EL)	9 Nm (AZ) - 18 Nm (EL)
Max. Speed	60°/sec (AZ) - 30°/sec (EL)	30°/sec (AZ) - 15°/sec (EL)
Accuracy	< ±0,03°	
Repeatability	< ±0,03°	
Resolution	0.005°	
Distance Between Hard Limits	N x 360° (AZ) / ± 46° (EL)	
General		
Major Dimensions	279 mm (Height), 178 mm (Width), 173 mm (Depth), 186 mm (Rotation Diameter)	
Tilt Table Dimensions	178 mm x 55 mm	
Tilt Table Arm Length	51 mm	
Weight	< 7 kg	
Operating Temperature	-30°C / +55°C	
Body	Machined Aluminum 6061	
Fasteners	Stainless Steel (A4)	
Exterior Finish	Chromate Coating (MIL-DTL-5541F, Type I, Class 1) and Double Layer of Paint (Primer & Exterior)	
Electrical		
Operating Voltage	24 VDC	
Motor Power Consumption (Both Axes Moving)	< 40 W	
Motor Power Consumption (Holding State)	< 27 W	
Heater Power Consumption	20W Heaters With Thermostatic Control [Between 0°C - 10°C]	
Incremental Encoder	Standard	
Absolute Encoder	N/A	
Slip Ring	Standard (1 x Gigabit Ethernet, 4 x 10A, 12 x 5A), Customizable	
Power off Brake	Optional	
Environmental		
Operating Temperature	-30°C/+55°C (MIL-STD810F Method 501.4 and Method 502.4)	
Storage Temperature	-40°C/+60°C (MIL-STD810F Method 501.4 and Method 502.4)	
Humidity	Relative Humidity 90%, Non-condensing (MIL-STD810F, Method 507.4)	
Vibration	MIL-STD-810F, Method 514.5, Procedure I, Category 20, Table 514.5C-VII, Figure 514.5C-3 (in power off mode)	
Shock	MIL-STD-810F, Method 516.5, Procedure I, (20g, 11 ms) (in power off mode)	
Rain	MIL-STD810F, Method 506.4 Procedure II	
Control		
Software	Standard (MS Windows 10 and Higher)	
Motor Drive Method	Microstepping	
Azimuth and Elevation Limits	Adjustable in Software	
Positioning Data Inputs	Absolute and Incremental Angles	
Preset Positions	Recordable Multiple Positions	
Controller Box	Included 19" 1,5U Rack Mount Chassis (Indoor Use Only)	
Communication	RS485 (Control Box and Positioner), USB (PC Unit and Control Box)	
Miscellaneous		
Tilt Table Modification	Optional	
Base Flange Modification	Optional	
Positioner Connectors	J1: Input, J2: Data Output to Payload, J3: Analog Display Output to Payload	
Positioner Connector Caps	Standard	
External Cables	Included (Data&Power 10m, USB 3m, Power In 220VAC 1.5m)	
Tilt Table Side Brackets	Optional	
Tilt Table Counterweights	Optional	
Main PC Unit	N/A	

Delivered torques are specified at maximum speed and tested in room temperature.

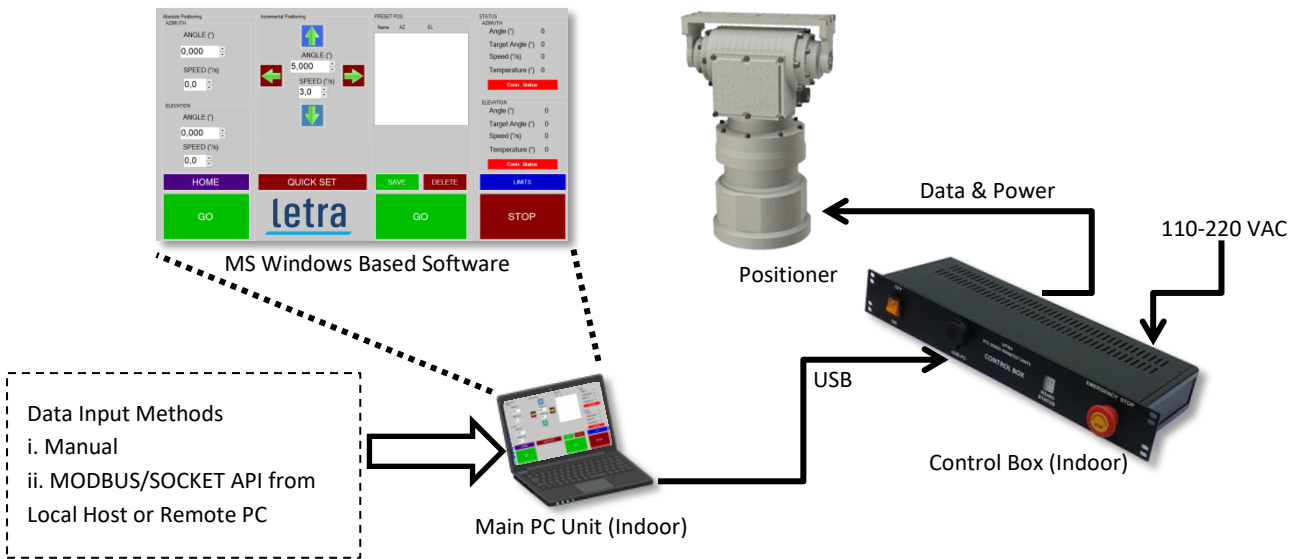
Optional items can change the dimension and weight values.

Motor power consumptions can be reduced by using power off brakes in holding state or in case of carrying lighter payloads.

Accuracy and repeatability are measured for each individual axis, in no load condition. (Accuracy measurement is in one direction, repeatability is in reverse. Both are very close to each other due to backlash-free design.)

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SYSTEM SCHEMATIC DIAGRAM



DIMENSIONS

