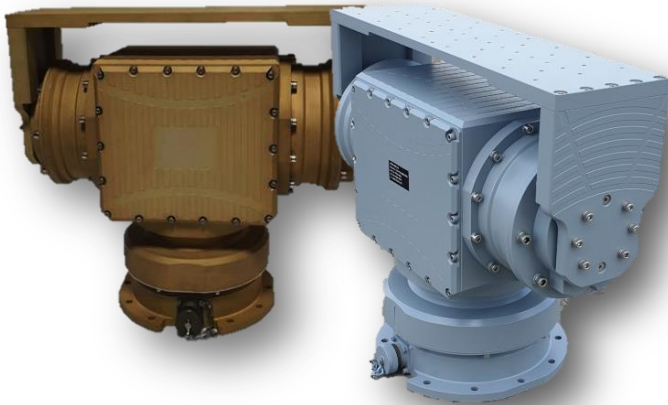


## PTS40 Series (Double Axis)



Our PTS40 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. PTS40 series have been developed especially for accurate positioning of antennas and electro-optical sensors.

All PTS40 Series Positioners are equipped with stepper motors, precision gearboxes and bearings, high resolution encoders with positional feedback. They are also configurable with selectable options.

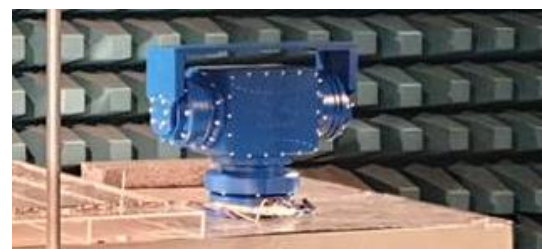
Complete series of the units are ruggedized and suitable for outdoor applications, ensuring trouble-free operation.

### APPLICATIONS

- 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



## PTS40 Series (Double Axis)

TECHNICAL SPECIFICATIONS					
Model Designation	PTS40-N100	PTS40-N200	PTS40-N320	PTS40-S050	PTS40-S100
<b>Azimuth and Elevation</b>					
Delivered Torque	145 Nm	290 Nm	464 Nm	207 Nm	414 Nm
Max. Speed	8°/sec (AZ) 8°/sec (EL)	4°/sec (AZ) 4°/sec (EL)	2,5°/sec (AZ) 2,5°/sec (EL)	27°/sec (AZ) 27°/sec (EL)	13,5°/sec (AZ) 13,5°/sec (EL)
Accuracy	< ±0.02°				
Repeatability	< ±0.02°				
Resolution	0.005°				
Distance Between Hard Limits	± 190° (AZ) / ± 95° (EL)				
<b>General</b>					
Major Dimensions	370 mm (Height), 464 mm (Width), 187 mm (Depth)			440 mm (Height), 484 mm (Width), 232 mm (Depth)	
Tilt Table Dimensions	464 mm x 130 mm			484 mm x 130 mm	
Tilt Table Arm Length	140 mm			160 mm	
Weight	< 31 kg			< 42 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)				
<b>Electrical</b>					
Operating Voltage	24 VDC			48 VDC	
Motor Power Consumption (Both Axes Moving)	< 88 W X 2			< 158 W X 2	
Motor Power Consumption (Holding State)	< 49 W X 2			< 94 W X 2	
Heater Power Consumption	40W X 4 Heaters With Thermostatic Control [Between 0°C - 10°C]				
Incremental Encoder	Standard				
Absolute Encoder	Standard				
Slip Ring	Optional				
Power off Brake	Standard				
<b>Environmental</b>					
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				
Icing & Freezing	MIL-STD810F, Method 521.2, Procedure I, (Ice thickness up to 10 mm)				
<b>Control</b>					
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)				
<b>Miscellaneous</b>					
Tilt Table Modification	Optional				
Base Flange Modification	Optional				
Positioner Connectors	Input (Data and Power)				
Positioner Connector Caps	Standard				
External Cables	Included (Data&Power 10 m, 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.

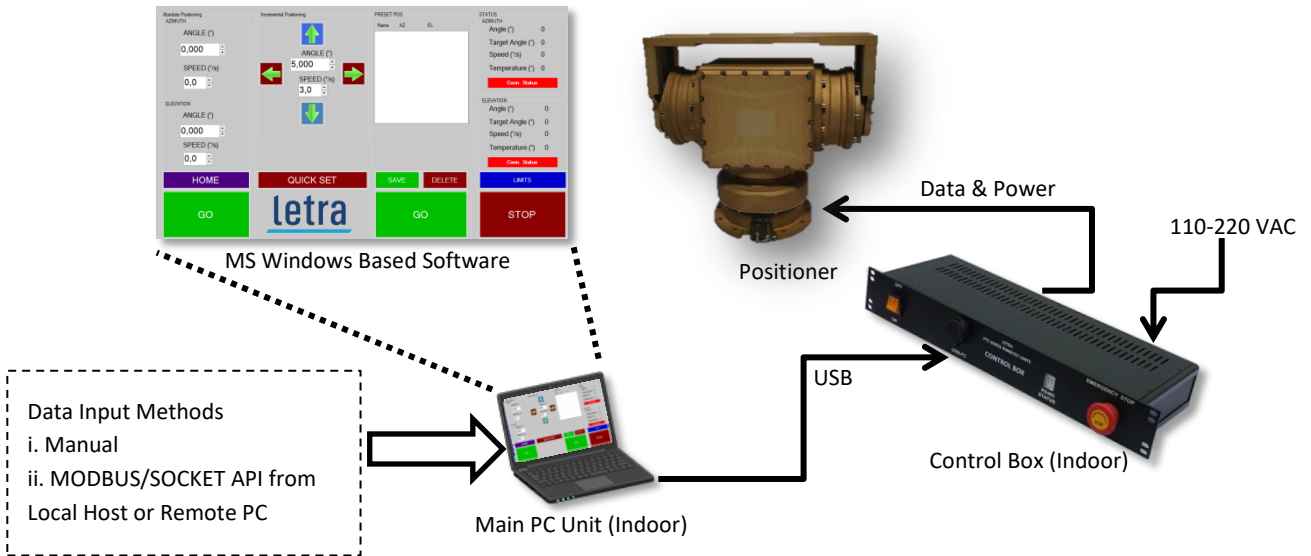
Motor power consumptions can be reduced by using power off brakes in holding state or in case of carrying lighter payloads.

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.)

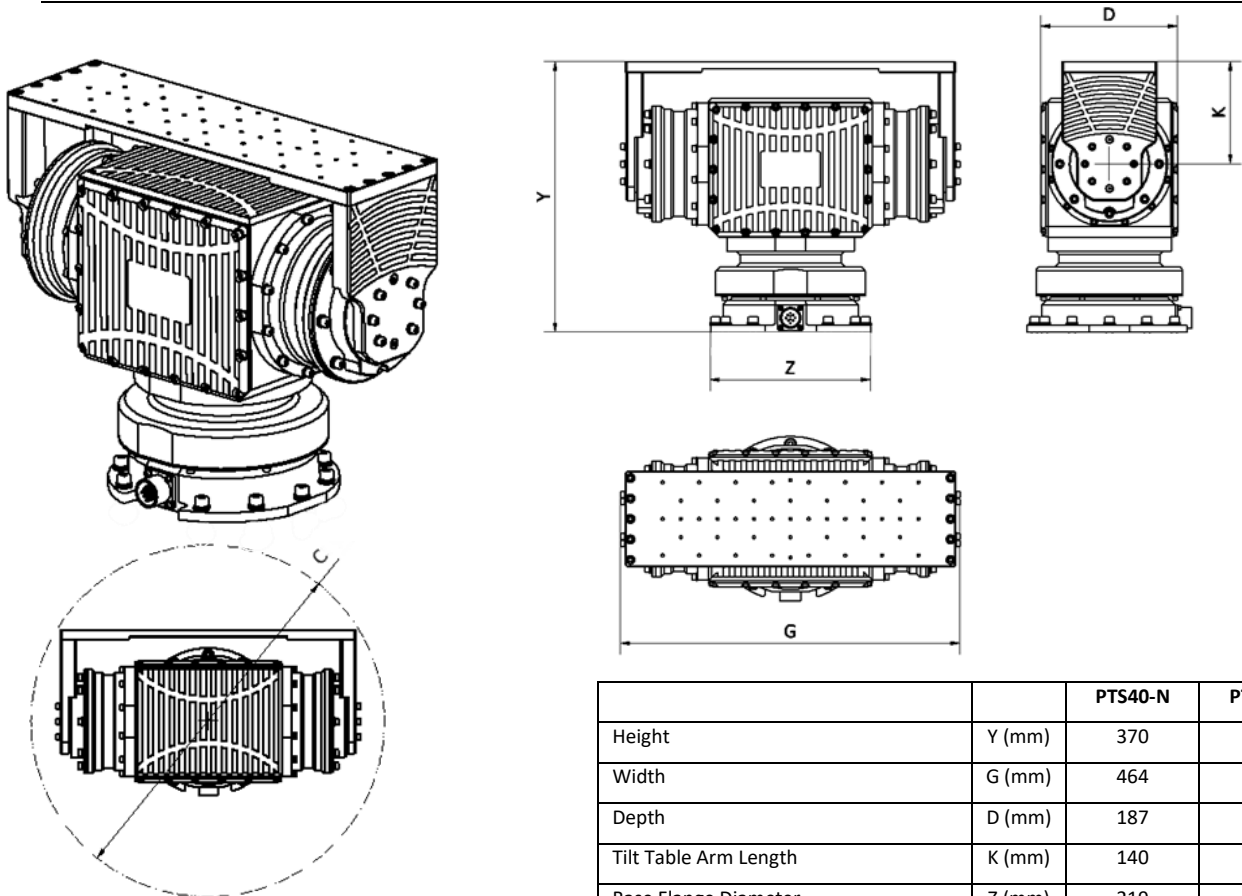
Absolute encoder is used only in the beginning of power on state.

## PTS40 Series (Double Axis)

### SYSTEM SCHEMATIC DIAGRAM



### DIMENSIONS



		PTS40-N	PTS40-S
Height	Y (mm)	370	440
Width	G (mm)	464	484
Depth	D (mm)	187	232
Tilt Table Arm Length	K (mm)	140	160
Base Flange Diameter	Z (mm)	219	219
Rotation Diameter (Tilt Table @90°)	C (mm)	540	570