



## QPT-200 and QPT-500 Series Pan & Tilt Positioners

The QPT-200 and QPT-500 Series of Pan & Tilt positioners are designed for a wide variety of applications. They are rugged and durable enough for virtually any environment. The QPT-200 and QPT-500 can handle payloads up to 200 or 500 foot pounds of torque, respectively, making each suitable for a wide range of sensors. Multiple models are available to fit your needs. Integrated Control (IC) units can communicate via networked PC or separate controller. Analog units are inexpensive solutions where simple command and control are required without a PC. The Sentry line takes our products to the next level by integrating Stepper Motors into the design for higher accuracy and speed control.

### AVAILABLE FEATURES

- Payloads up to 500 ft-lbs (678 Nm)
- Analog driven or Digital Serial Integrated Controller (IC) models
- Fixed, Inverted or Mobile Installations
- Mil-Spec Connectors
- Tough metal housing and gearing for durability in harsh environments
- Marine configuration that meets IP-67 standards
- RF pass-through connectivity (RF rotary joint, 1-3 channels)

### SENSOR INTEGRATION

- Multi-Spectrum Cameras (Visible/NIR/SWIR)
- Thermal Imagers (LWIR)
- IR and Visible Illuminators
- Laser Range Finders
- Communication Antennas
- Acoustic Devices

# QPT-200 AND QPT-500 SERIES

## Serial/IP Features

- Available with DC brush or stepper motors
- Microprocessor control
- Software controlled with status feedback
- Serial Communication: RS232/422/485 and IP
- Control Protocols: QuickSet and Pelco D
- 2 programmable tours and 32 presets

## Analog Features

- Simple command and control with one controller for one positioner
- Azimuth/Elevation position feedback output
- Power supply integrated into controller

## Standard Performance

<b>Load Capacity</b>	QTP-200 – 200 ft - lbs (271 Nm) maximum QTP-500 – 500 ft - lbs (679 Nm) maximum	
<b>Operating Voltage Range</b>	QTP-200 – 24VDC (±4VDC) QTP-500 – 48VDC (±4VDC)	
<b>Pan-Axis Range</b>	350° (±175°) (non-slip ring)	
<b>Pan-Axis Speed</b>	0.001° - 10.5°/sec	
<b>Tilt-Axis Range</b>	180° (±90°)	
<b>Tilt-Axis Speed</b>	0.005° - 3.5°	
<b>Internal Heater</b>	Thermostatically controlled (32° on/35° off)	
<b>Operating Temperature</b>	-15°C to 55°C (without heater) 5°F to 131°F (without heater)	-30°C to 55°C (with heater) -22°F to 131°F (with heater)
<b>Rotational Limits</b>	Fixed tilt hard limit, adjustable soft limits on both axes	
<b>Feedback</b>	Optical Encoders (0.01° readout)	
<b>Repeatability</b>	0.25° (Pan - 0.05°, Tilt - 0.1° on Sentry models)	
<b>Duty Cycle</b>	20%	
<b>Motor Type/Drive</b>	Stepper (Sentry) and DC Brush	
<b>Communication to Pan &amp; Tilt</b>	RS232/422/485, IP Ethernet: 10/100 Base-T	
<b>Communication to Sensors</b>	RS232/422	
<b>Control Protocol</b>	QuickSet or Pelco D	
<b>Connector Specifications</b>	Mil-Spec grade used on all configurations	
<b>Materials</b>	Housing 6061-T6 Aluminum, stainless steel hardware, permanently sealed radial ball bearings.	
<b>Finish/Color</b>	White powder coat paint over alodined chromate for corrosion resistance standard. Other colors and CARC available upon request	
<b>Weight</b>	117 lbs (80.45 kg) to 122 lbs (55.45 kg) depending on model	
<b>Dimensions</b>	See page 4	
<b>Test Cable and Software</b>	6 ft test cable and software included with all IC and Sentry configurations	

Note: Test software compatible with Windows-95 SP2, 98, ME, 2000 and XP version. Not compatible with NT. QuickSet control protocol documentation supplied. Different models may vary.



**Standard Housing**

## SERIAL/IP CONFIGURATION

	DC Brush-Type Motor Configurations		Stepper Motor Configurations (Sentry)	
	QPT-200 - 24 VDC	QPT-500 - 24 VDC	QPT-200 - 24 VDC	QPT-500 - 48 VDC
<b>Pan Speed Range</b> (deg/sec)	0.001° – 8°	0.001° – 8°	0.001° – 8°	0.001° – 10.5°
<b>Tilt Speed Range</b> (deg/sec)	0.001° – 3°	0.001° – 3°	0.001° – 3°	0.001° – 3.5°
<b>Weight</b>	117 lbs (80.45 kg)	122 lbs (55.45 kg)	117 lbs (80.45 kg)	122 lbs (55.45 kg)

Note: Speed ranges in pan and tilt axis due to various gear ratio and payload configuration - contact factory for details

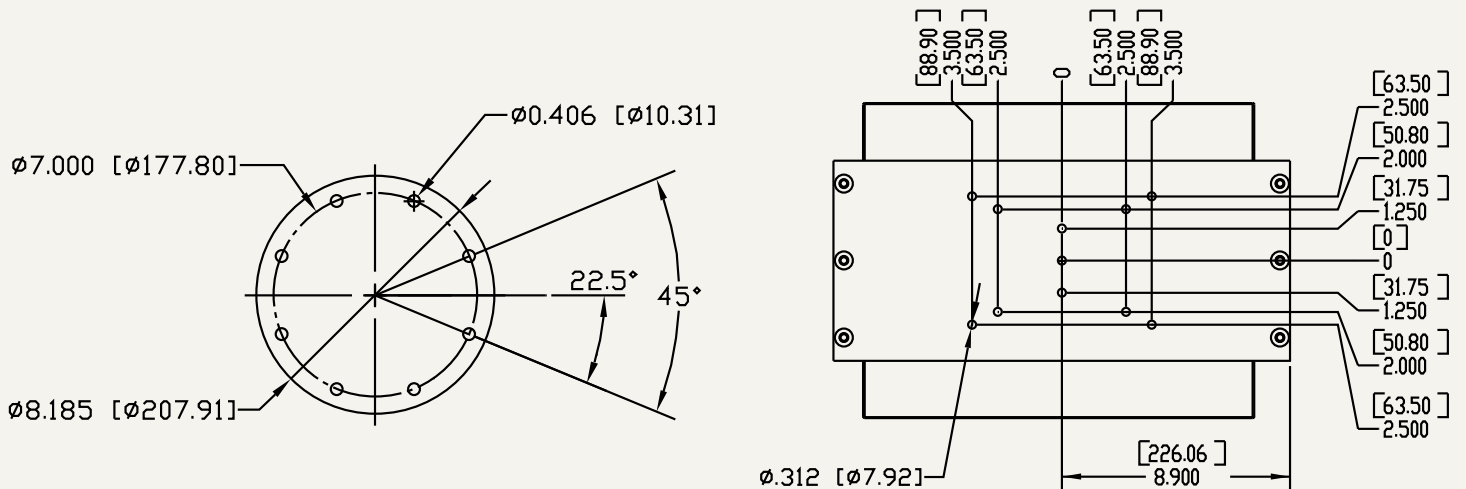
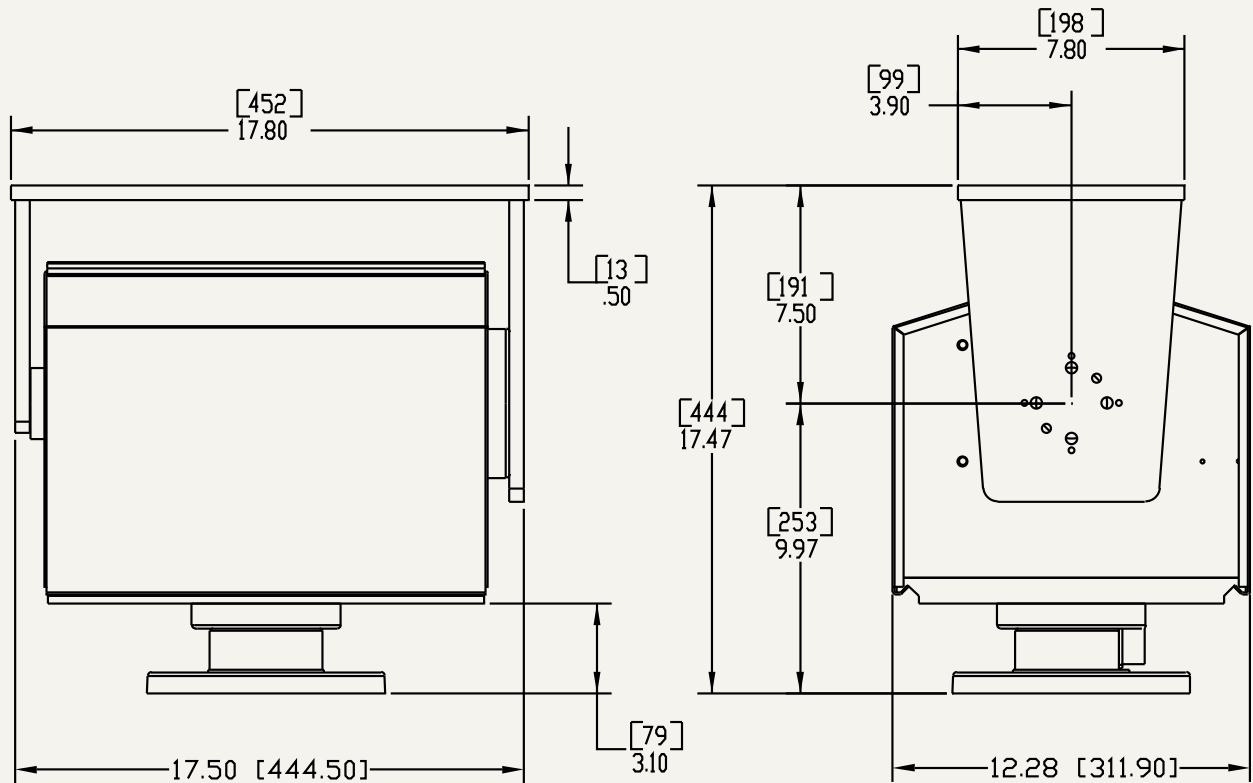
## ANALOG CONFIGURATION

	QPT-200	QPT-500
	115 VDC	115 VDC
<b>Pan Speed Range</b> (deg/sec)	0.4° – 10°	0.4° – 10°
<b>Tilt Speed Range</b> (deg/sec)	0.2° – 0.3°	0.2° – 3°
<b>Motor Type</b>	DC Brush	DC Brush
<b>Weight</b>	117 lbs (53.18 kg)	122 lbs (55.45 kg)

Note: Speed ranges in pan and tilt axis due to various gear ratio and payload configuration - contact factory for details

# QPT-200 AND QPT-500

## STANDARD HOUSING



TOP LOAD FORCE (FT-LBS) \*Upright Mounting

Dimensions are in Inches [mm]



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