

QPT-200/500 SERIES PAN & TILT POSITIONERS



The QPT-200 and QPT-500 Series of pan & tilt positioners are designed to be rugged and durable enough for virtually any environment. These positioners can handle payloads up to 750 lbs., with 200 or 500 lb-ft. of torque respectively, making each suitable for a wide range of sensors. Multiple models are available to fit your needs such as RF/SATCOM, telemetry or integrated multi-sensor platforms. Integrated Control (IC) units can communicate via networked PC or separate controller and include stepper motors for higher accuracy and speed control.

AVAILABLE FEATURES

- Payloads requiring up to 500 lb-ft. (678 Nm)
- Analog driven or digital integrated controller (IC) models
- Internal wire table top for pass-through or IC sensor wiring on certain models
- Fixed, inverted or mobile installations
- Mil-Spec connectors
- Rigid aluminum housing and hardened steel gearing for durability in harsh environments
- Marine configuration that meets IP67 standards

SENSOR INTEGRATION

- Multi-Spectrum cameras (Visible / NIR / SWIR / MWIR / LWIR)
- IR and visible illuminators
- Laser range finders
- Communication antennas
- Acoustic devices



QPT-200 AND QPT-500 SERIES

PERFORMANCE

Features	Model 7-4100B	Model 7-4500B	Model 7-45000	Model 7-46000	Model 7-60056
Payload capacity	350 lbs.		750 lbs.		500 lbs.
Payload torque	200 lb-ft. (271 Nm)		500 lb-ft. (678 Nm)		500 lb-ft. (678 Nm)
Pan range of motion		420°		Continuous	350°
Pan speed range		0.005°-20°/s			0°-10°/s
Tilt range of motion		180° (±90°)			
Tilt speed range		0.01°-4°/s			0°-3°/s
Repeatability		0.1°			N/A
Positioning resolution		0.01°			N/A
Position feedback		Optical Encoders			Potentiometers
Hard limits (Mechanically adj.)		Pan & Tilt		Tilt Only	Pan & Tilt
Soft limits (Software adj.)		Pan & Tilt		Pan & Tilt	N/A
Duty cycle	These positioners are designed for periodic movement. For applications requiring constant motion, please contact our team for solutions tailored to your use case and environment.				

POWER

Features	Model 7-4100B	Model 7-4500B	Model 7-45000	Model 7-46000	Model 7-60056
Operating voltage	24 VDC (± 2 VDC)	48 VDC (±4 VDC)			0-115 VDC
Power consumption (Approx)	Idle	38 watts (0.8A)	38 watts (0.8A)		0 watts (0A)
*Simultaneous pan & tilt move, fully loaded, without payload power	*Continuous	350 watts (7.3A)	255 watts (5.3A)		400 watts (3.4A) dependent on payload and controller used
	*Peak	542 watts (11.3A)	384 watts (8A)		
	Heaters	106 watts (4.4A)	175 watts (3.6A)		450 watts (3.75A)
Regulated power to payload	1.25A @ 12 VDC	1.5A @ 12 VDC			Not an applicable specification for this product
Pass through power to payload		4 conductors, 8A ea. max.			

COMMUNICATION

Features	Model 7-4100B	Model 7-4500B	Model 7-45000	Model 7-46000	Model 7-60056	
Communication method to positioner	RS232/422 or Ethernet 10/100 Base-T					
Protocol	PTCR-96 or Pelco D (limited)					
Communication to payload	RS232/422 (Tunneling)		2 x RS232/422 (Tunneling)		Not an applicable specification for this product	
Other pass through from base connector: (TP = twisted pair)	4 TP, signal ground		2 x 2 TP, signal ground			
Video connection	1 SD Video		4 SD Video			

PHYSICAL PROPERTIES

Features	Model 7-4100B	Model 7-4500B	Model 7-45000	Model 7-46000	Model 7-60056
Weight (w/o payload)	120 lbs. (54.5KG)	175 lbs. (79KG)	190 lbs. (86.3KG)	120 lbs. (54.5KG)	
Dimensions	20.2" W x 18.1" H x 12.4" D	22.1" W x 19.4" H x 13.1" D	21.3" W x 19.9" H x 13.1" D		17.5" W x 17.3" H x 12.3" D
Drive system	Stepper motors, hardened steel worm gear drive				PM Brush Motors, hardened steel worm gear drive(19KG)

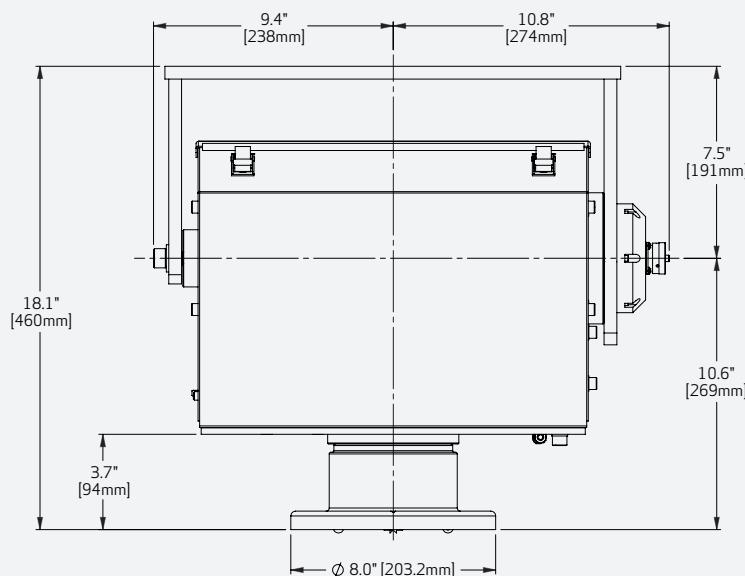
CONSTRUCTION

Features	Model 7-4100B	Model 7-4500B	Model 7-45000	Model 7-46000	Model 7-60056
Material	Aluminum 6061-T6 plate, stainless steel hardware, permanently sealed radial ball bearings.		Aluminum 6061-T6 weldment, permanently sealed radial ball bearings.		Aluminum 6061-T6 plate, stainless steel hardware, permanently sealed radial ball bearings.
Exterior finish	Powder coat paint (STD.), customer specified color				

ENVIRONMENTAL

Features	Model 7-4100B	Model 7-4500B	Model 7-45000	Model 7-46000	Model 7-60056
Operational temperature	-15°C to 55°C (5°F to 131°F) without heater		-30°C to 55°C (-22°F to 131°F) with heater		Not Rated
Environmental classification	Not Rated		IP66/67		Not Rated

ARCHITECTURAL AND DIMENSIONAL DRAWING





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