

QPT-20 SERIES PAN & TILT POSITIONER



The QPT-20 Series of pan & tilt positioners is designed for a wide variety of sensor position applications. The QPT-20 Series is rugged and durable enough for virtually any environment, including port surveillance and mobile vehicle vision systems. Stepper motor models can handle up to 20 lb-ft. of torque for heavier payloads. The brush motor QPT-20 models can handle payloads up to 8 lb-ft. Both provide

tabletop load mounting for multiple sensor array applications. Digital Integrated Control (IC) units communicate via network interface or through a dedicated controller. If preferred, an analog unit is available as an effective solution where simple direction control is required without a PC.

AVAILABLE FEATURES

- Payloads up to 20 lb-ft. (27.1Nm) on stepper motor models, 8 lb-ft. (10.8Nm) on brush motor models
- Analog driven or digital integrated controller (IC) models
- Fixed, inverted or mobile installations
- Mil-Spec connectors
- Tough aluminum housing and hardened steel gearing for durability in harsh environments
- Marine configuration that meets IP-66 standards
- Shock & vibration mil-spec tested

SENSOR INTEGRATION

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



QPT-20 SERIES

PERFORMANCE

Features	Model 7-25HSB	Model 7-2500B	Model 7-23HSB	Model 7-22HSB	Model 7-07051
Payload capacity	30 lbs.		20 lbs.		
Payload torque	20 lb-ft. (27.1 Nm)		8 lb-ft. (10.8 Nm)		
Pan range of motion	Continuous			435°	
Pan speed range @ rated voltage	0.005°-25°/s	0.005°-25°/s	1.5°-33°/s		0.7°-11°/s
Tilt range of motion	180° (± 90°)				
Tilt speed range @ rated voltage	0.005°-8°/s	0.005°-4°/s	2°-13°/s		1°-6°/s
Repeatability	0.05°		0.25°		N/A
Positioning resolution	0.1°				N/A
Position feedback	Optical Encoder		Optical Encoder (Pan), Pot (Tilt)	Potentiometers	
Hard limits (Mechanically adj.)	Tilt only			Pan & Tilt	
Soft limits (Software adj.)	Pan & Tilt		Tilt Only	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 7-25HSB	Model 7-2500B	Model 7-23HSB	Model 7-22HSB	Model 7-07051
Operating voltage		24 VDC (± 4 VDC)	12 VDC (± 2 VDC)	24 VDC (± 2 VDC)		0-12 VDC
Power consumption (Approx) *Simultaneous pan & tilt move, fully loaded, without payload power	Idle	15 watts (0.6A)		7.2 watts (0.3A)		0 watts (0A)
	*Continuous	40 watts (1.6A)		24 watts (1A)		12 watts (1A) - dependent on payload and controller used.
	*Peak	48 watts (2.0A)		55 watts (2.3A)		
	Heaters	15 watts (0.6A)		24 watts (1A)		100 watts (4.2A)
Regulated power to payload		1.5A @ 12 VDC		1.25A @ 12 VDC		Not an applicable specification for this product
Pass through power to payload		2 conductors 5A ea. max.		2 conductors, 7.5A ea. max.		

COMMUNICATION

Features	Model 7-25HSB	Model 7-2500B	Model 7-23HSB	Model 7-22HSB	Model 7-07051
Communication method to positioner	RS232/422 or Ethernet 10/100 Base-T				Not an applicable specification for this product
Protocol	Quickset PTCS-20 or Pelco D (limited)		Quickset PTCR-20 or Pelco D (limited)		
Communication to payload	RS232/422 (Tunneling)				
Other pass through from base connector: (TP = twisted pair)	4 TP, signal ground				
Video connection	1 SD Video				

PHYSICAL PROPERTIES

Features	Model 7-25HSB	Model 7-2500B	Model 7-23HSB	Model 7-22HSB	Model 7-07051
Weight (w/o payload)	15 lbs. (6.8KG)		14.3 lbs. (6.5KG)		11 lbs. (5KG)
Dimensions	10.25" W x 10.00" H x 6.40" D		11.8" W x 9.93" H x 5.75" D		9.37" W x 9.3" H x 5.12" D
Drive system	Stepper motors, hardened steel worm gear drive		PM brush motors, hardened steel worm gear drive		

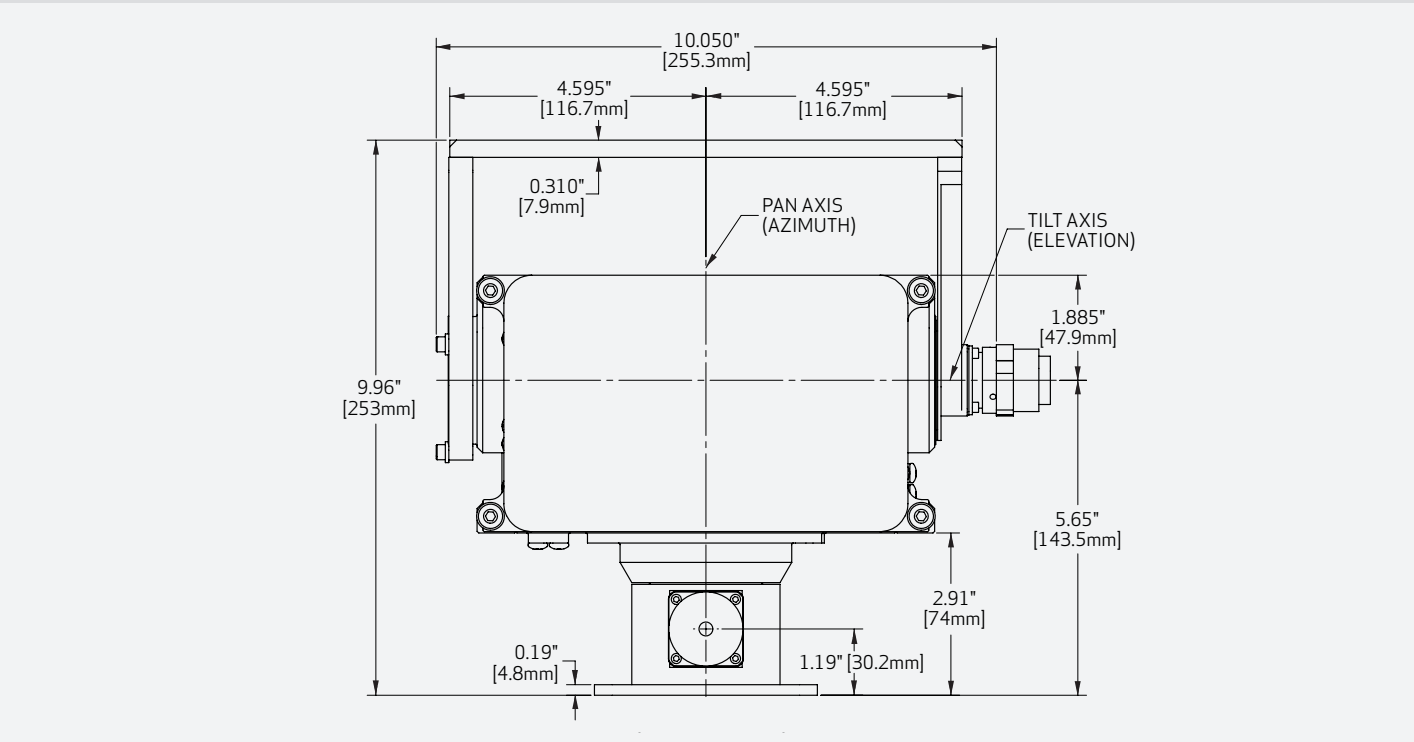
CONSTRUCTION

Features	Model 7-25HSB	Model 7-2500B	Model 7-23HSB	Model 7-22HSB	Model 7-07051
Material	Aluminum 356-T6 housing, stainless steel hardware, permanently sealed radial ball bearings		Aluminum 6061-T6 extrusion, stainless steel hardware, permanently sealed radial ball bearings.		
Exterior finish	Powder coat paint (STD.), customer specified color				

ENVIRONMENTAL

Features	Model 7-25HSB	Model 7-2500B	Model 7-23HSB	Model 7-22HSB	Model 7-07051
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				
Environmental classification	IP66				Not Rated

ARCHITECTURAL AND DIMENSIONAL DRAWING





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